

THE FOURTEENTH
ANNUAL REPORT
ON THE HEALTH

OF THE
COUNTY BOROUGH OF WIGAN,
FOR THE

Year ending December 31st, 1909,

BY

WILLIAM BERRY,

F.R.C.S.I., D.P.H., F.P. & S., Glasgow.

Fellow of the Incorporated Society of Medical Officers of Health.

Past President of the North-Western Branch.

Fellow of the Royal Sanitary Institute.

Fellow of the Royal Institute of Public Health

Fellow of the Royal Academy of Medicine, Ireland.

Medical Officer of Health, and

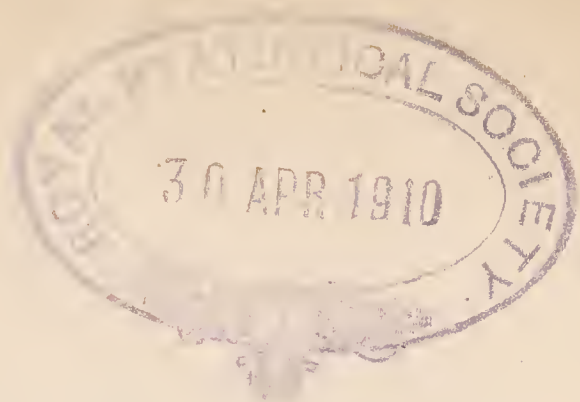
Medical Superintendent of the Borough Sanatoria for
Infectious Diseases.




WIGAN

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HEALTH COMMITTEE

From November, 1909, to November, 1910.

CHAIRMAN :

ALDERMAN J. PHILLIPS, J.P.

VICE-CHAIRMAN :

COUNCILLOR G. WOLSTENHOLME, M.B., J.P.

THE MAYOR.

THE EX-MAYOR.

COUNCILLOR H. BARTON.

„ M. BENSON, M.D., J.P.

„ J. BRADSHAW.

„ J. COUNSELL.

„ J. T. GRIMSHAW.

„ J. P. HEYES.

„ W. HIGHTON.

„ A. E. MATHER.

„ H. ROSS.

„ THORLEY SMITH.

„ E. YATES.

Committee meets on the 3rd Thursday in each month, at 3-0 p.m.

SANITARY WORKS COMMITTEE.

From November, 1909, to November, 1910.

CHAIRMAN :

ALDERMAN J. PAXTON.

VICE-CHAIRMAN :

COUNCILLOR J. P. HEYES.

THE MAYOR.

THE EX-MAYOR.

ALDERMAN L. BOOTH, J.P.

„ R. BRITTON.

„ J. PHILLIPS, J.P.

COUNCILLOR W. H. ANGUS.

„ J. BOTT.

„ W. BALL.

„ J. CHEETHAM, J.P.

„ E. DICKINSON.

„ H. LITHERLAND.

„ J. LOWE.

„ W. LOWE, J.P.

Committee meets on the 4th Monday in each month at 3-45 p.m.

SANATORIA SUB-COMMITTEE.

From November, 1909, to November, 1910.

CHAIRMAN :

COUNCILLOR G. WOLSTENHOLME, M.B., J.P.

THE MAYOR.

THE EX-MAYOR.

ALDERMAN J. PHILLIPS, J.P.

COUNCILLOR H. BARTON.

„ J. BRADSHAW.
 „ M. BENSON, M.D., J.P.
 „ W. HIGHTON.
 „ A. E. MATHER.
 „ THORLEY SMITH.

Committee meets the Wednesday before the 3rd Thursday in each month, at 11 a.m.

INSANITARY HOUSES COMMITTEE.

From November, 1909, to November, 1910.

CHAIRMAN :

ALDERMAN A. BYWATER, J.P.

VICE-CHAIRMAN :

COUNCILLOR J. ROSCOE.

THE MAYOR.

THE EX-MAYOR.

ALDERMAN R. BRITTON.

„ H. SWIFT.
 COUNCILLOR G. CAUSEY.
 „ G. ELLISON.
 „ R. T. FLETCHER.
 „ W. HIGHTON.
 „ G. WOLSTENHOLME, M.B., J.P.
 „ E. YATES.

The Committee meets when required.

MEDICAL OFFICER OF HEALTH'S DEPARTMENT.

Medical Officer of Health and Medical Superintendent of Sanatoria:
WILLIAM BERRY, F.R.C.S.I., D.P.H., F.P. & S., Glasgow.

Fellow of the Incorporated Society of Medical Officers of Health,
Past President of North-Western Branch,
Fellow of the Royal Sanitary Institute,
Fellow of the Royal Institute of Public Health, and
Fellow of the Royal Academy of Medicine, Ireland.

Assistant Medical Officer of Health :

J. FOREMAN BERRY, M.B., B.Ch., St.And., L.R.C.P. & S.Ed., &c.

Chief Sanitary Inspector :

JOHN SUMNER, Certif. San. Inst., and Assoc. Royal
San. Inst., Cert. City of London Guilds (Plumbing).

Assistant Sanitary Inspectors :

CHARLES H. FRANCE, Certif. San. Inst.

FRED MARTLEW, Certif. San. Inst.

Smoke, Shop Hours Act, and Factory and Workshop Act :

FRED G. BISHOP.

Sub-Inspector :

JOHN ASHTON.

Lady Health Visitor :

Miss ALLDRITT, Certif. San. Inst., and National Health Society
(Silver Medal). Certif. C.M.B.

Clerk :

ARTHUR BYERS.

Enquiry Office :

ERNEST RICHARDSON.

Disinfectors :

JAMES RISLEY.

GEORGE CROSTON.

HENRY PARKINSON.

Master of Sanatorium :

MICHAEL MOORE.

By order of the Local Government Board, dated March 23rd, 1891, Article 18, Section 14, it is prescribed that the Medical Officer of Health shall “prepare an Annual Report, to be “made to the end of December in each year, comprising a “summary of the action taken during the year for preventing “the spread of disease, and an account of the sanitary state “of his district generally at the end of the year. The “report shall also contain an account of the enquiries “which he has made as to conditions injurious to health “existing in his district, and of the proceedings in which “he has taken part, or advised under the Public Health Act, “1875, so far as such proceedings relate to those conditions ; “and also an account of the supervision exercised by him “or on his advice, for sanitary purposes over places and “houses that the Sanitary Authorities have power to “regulate, with the nature and results of any proceedings “which may have been so required and taken in respect of “the same during the year. It shall also record the action “taken by him or on his advice, during the year, in regard “to offensive trades, and to factories and workshops. The “report shall also contain tabular statements (on forms to “be supplied by the Local Government Board, or to the “like effect) of the sickness and mortality within the “district, classified according to diseases, ages, and localities.”

CORPORATION OF WIGAN,

HEALTH DEPARTMENT.

FEBRUARY 17TH, 1910.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have the honour to present you with my Fourteenth Annual Report on the Health of your County Borough for the year 1909.

The Death-rate, calculated on an estimated population of 93,263, is 18·28, against 16·97 in 1908; this shows an increase of 1·31 per 1,000 of the population, this being due to a greater percentage of deaths from Zymotic Diseases.

Measles and Whooping Cough were prevalent in March, April, and May, and Bronchial and Pulmonary affections caused us many deaths from January until the end of June.

The Birth-rate is 30·67, against 31·85 for last year; this shows a decrease of 1·18.

The total number of deaths from Zymotic Diseases is 231, a rate of 2·47, against 1·85 in 1908.

The Infantile deaths number 169 per 1,000 births, whilst that for England and Wales is 109, and 154 deaths per 1,000 births, against 121 in England and Wales for 1908.

The number of deaths in persons over 60 years was 341, against 340 in 1908.

The following Schools were closed on account of Measles :—

St. Thomas's, Clayton St...	All depts.	..	February 11th for 23 days		
St. Michael's	..	..	Infants' dept.	..	.. 23rd .. 25 ..
National and Blue Coat	..	..	..	..	.. March 8th .. 21 ..
St. Thomas's, Clayton St...	All depts.	..	..	..	.. 9th .. 12 ..
Presbyterian	..	..	Infants' dept.	..	.. 9th .. 20 ..
Marylebone	..	..	All depts.	..	.. 1st .. 14 ..
..	..	..	..	..	.. 15th .. 14 ..
St. Michael's	..	..	Infants' dept.	..	.. 22nd .. 7 ..
St. Catherine's	..	..	..	..	.. 3rd .. 19 ..
..	..	..	..	..	.. 22nd .. 7 ..
Whelley	..	..	..	..	.. 22nd .. 21 ..
Wesleyan	..	..	..	..	.. 22nd .. 21 ..
St. Joseph's	..	..	..	..	.. 23rd .. 19 ..
St. George's	..	..	..	..	.. 23rd .. 19 ..

All the Schools were closed on March 27th for 23 days.

Measles caused 82 deaths.

We have still continued to treat cases of Consumption in the Doecker Hospital, and I think with some success. The Guardians still pay for the patients' maintenance. The number of cases were 18 ; improved 8, "no improvement" 4, left on own accord 3, and there are 3 cases still in and doing well.

Scarlet Fever gave us for Hospital treatment 331 cases, against 138 in 1908. The death-rate from Scarlet Fever was .17, against .11 in 1908.

Enteric Fever was prevalent in 1909 during the months of January, May, September, and November. We treated 62 cases in the Sanatorium. The death-rate for Enteric Fever was .19, against .28 in 1908. The Sanatorium rate was 17.7 per cent., but the worst and most hopeless cases were removed. We had the satisfaction of trying to save, and where we failed, we alleviated suffering and made the patients comfortable.

I regret to record the death of one of the Inspectors in the Health Department, namely, Michael Clunan. He was an efficient Inspector and discharged the duties allotted to him without a murmur.

Miss Alldritt, the Lady Health Visitor, commenced her duties in April and has done good and efficient work. At the commencement she discharged a Sanitary Inspector's duties, but now she has plenty to do in looking after and giving advice when we get Notifications of Births. She has done serviceable work in the Inspection of Midwives.

I tender my thanks to my colleagues in the Medical Profession for their co-operation.

To Mr. Sumner, Chief Sanitary Inspector, and the rest of the staff, as well as the Assistant Medical Officer, I also tender my grateful thanks.

In conclusion, I thank the Chairman, Vice-Chairman, and members of the Committee for their kindness and help.

I am, Gentlemen,

Your obedient Servant,

WM. BERRY,

Medical Officer of Health.

PART I.

VITAL STATISTICS.

REPORT.

STATISTICAL SUMMARY FOR 1909.

Population estimated July 1st, 1909 93,263

Marriages are not ascertained for the County Borough.

„ Annual rate per 1,000 of population ditto.

<i>Births</i>	{	Males.....	1420	}	Total	2,861
		Females.....	1441			

Annual rate of births per 1,000 of population..... 30·67

Ditto for England and Wales ... 25·6

Illegitimate births 141, or 1·51 per 1,000 of population, a percentage of 4·9

<i>Deaths</i>	{	Males.....	878	}	Total	1,705
		Females.....	827			

Annual rate of mortality..... 18·28

Ditto in England and Wales ... 14·5

Death rate in 76 great towns 15·6

Ditto 142 smaller „ 14·5

Ditto Rural England and Wales 13·6

Excess of registered births over deaths..... 1,156

Total deaths from Zymotic diseases 231

Annual rate of mortality from zymotic diseases 2·47

Ditto in England and Wales 1·12

Total Deaths from diarrhœa 51

Annual rate of mortality from diarrhœa ·54

Infantile rate (deaths per 1,000 births), 1909... 169

Ditto for England and Wales 109

Deaths of Infants under one day old, number ... 58

Acreage.—With an acreage of 5,082, and a population estimated at 93,263, we have 18·35 persons per acre.

Population.—The population estimated at the middle of the year (June 30, 1909) is 93,263, and this may be taken as fairly correct, in accordance with the number of inhabited houses on July 1st.

Births.—The number of births registered during 1909 is 2,861 (males 1,420, females 1,441), the rate per 1,000 of the population being 30·67. The birth rate, compared with 1908 is 1·18 lower. The illegitimate births number 141, or 4·9 per cent.

The Mortality Rate.—The deaths for 1909 number 1,705 (males 878, females 827), being an excess of 51 males over females. The rate per 1,000 of the population per annum is 18·28; in 1908, 16·97; thus on a population of 93,263 we have an increase in deaths of 141 over 1908. There is therefore an increase in the death rate of 1·31 per 1,000.

The death rate for each quarter is as follows :—

1909.	All causes.	Zymotics.
1st Quarter	23·20	2·55
2nd Quarter	18·73	3·28
3rd Quarter	14·55	2·66
4th Quarter	17·13	1·45

The zymotic rate, 2·47, shows an increase for 1909. The previous year it was 1·85, showing an increase of ·62. This is due to an increase in the number of deaths from measles and whooping cough.

THE VITAL STATISTICS FOR ENGLAND AND WALES DURING 1909

ENGLAND AND WALES.

	1909.	1908.
Birth rate per 1,000 living	25·6	26·5
Death rate per 1,000 living	14·5	14·7
Seven epidemic diseases per 1,000 living.	1·12	1·29
Infant mortality per 1,000 births	109	121

TABLE I.

WEEKLY RETURN OF BIRTHS AND DEATHS FOR 1909.

1909. WEEK ENDING.	Deaths from all Causes.	Annual Rate per 1,000.	Deaths from Zymotics.	Zymotic Rate.	Births.	Annual Rate per 1,000
January 2	36	20·32	2	1·12	46	25·97
" 9	39	22·02	3	1·69	67	37·83
" 16	28	15·80	—	—	52	29·34
" 23	31	17·49	2	1·12	58	32·73
" 30	37	20·86	2	1·12	57	32·14
February 6	38	21·43	4	2·25	64	36·09
" 13	36	20·29	4	2·25	67	37·76
" 20	54	30·43	6	3·33	61	34·38
" 27	39	21·98	4	2·25	57	32·13
March 6	48	27·05	7	3·94	55	31·00
" 13	49	27·62	4	2·25	51	28·74
" 20	44	24·78	8	4·50	69	38·87
" 27	56	31·54	13	7·32	67	37·74
April 3	45	25·35	9	5·07	62	34·92
" 10	28	15·76	5	2·81	57	32·09
" 17	35	19·70	8	4·50	58	32·65
" 24	34	19·13	7	3·93	55	30·95
May 1	43	24·19	11	6·18	40	22·50
" 8	21	11·81	6	3·37	64	35·99
" 15	44	24·74	9	5·06	63	35·43
" 22	32	17·98	4	2·24	62	34·85
" 29	31	17·42	3	1·68	43	24·17
June 5	30	16·86	4	2·24	53	29·79
" 12	34	19·10	4	2·24	79	44·38
" 19	29	16·29	4	2·24	41	23·03
" 26	27	15·16	2	1·12	67	37·61
July 3	25	14·02	8	4·48	55	30·86
" 10	26	14·59	3	1·68	58	32·54
" 17	22	12·33	2	1·12	46	25·79
" 24	21	11·77	3	1·68	66	36·99
" 31	25	14·01	2	1·12	65	36·43
August 7	22	12·32	2	1·12	34	19·04
" 14	25	14·00	6	3·36	59	33·05
" 21	27	15·11	2	1·11	58	32·47
" 28	29	16·22	5	2·79	65	36·37
September 4	31	17·34	9	5·03	40	22·38
" 11	27	15·10	11	6·15	50	30·21
" 18	31	17·34	5	2·79	42	23·50
" 25	27	15·10	4	2·23	54	30·20
October 2	26	14·54	4	2·23	47	26·28
" 9	35	19·56	4	2·23	57	31·86
" 16	28	15·65	2	1·11	48	26·83
" 23	26	14·52	4	2·23	57	31·84
" 30	25	13·96	3	1·67	38	21·22
November 6	30	16·75	1	·55	52	29·05
" 13	20	11·16	2	1·11	59	32·94
" 20	19	10·60	2	1·11	60	33·48
" 27	44	24·55	2	1·11	52	29·01
December 4	34	18·97	2	1·11	40	22·32
" 11	42	23·42	2	1·11	56	31·23
" 18	26	14·50	2	1·11	46	25·65
" 25	44	24·53	4	2·23	38	21·19

TABLE II.

MONTHLY TABLE OF DEATHS FROM ALL CAUSES
AND ZYMOTIC DISEASES WITH RATES
PER 1,000 PER ANNUM FOR 1909.

MONTH.	No. of Deaths from all Causes.	Annual Rate per 1,000 living.	No. of Deaths from Zymotic Diseases.	Annual Rate per 1,000 living.	Deaths of	
					Infants under 1 yr.	Persons over 60 yrs
January	171	19.29	9	1.01	46	29
February	167	23.53	18	2.53	44	41
March.....	197	27.74	32	4.50	50	45
April	142	19.98	29	3.57	35	22
May	171	19.22	33	3.70	42	27
June	120	16.85	14	1.96	33	25
July	119	13.34	18	2.01	35	26
August	103	14.41	15	2.09	34	21
September.....	116	16.22	29	4.05	43	22
October	140	15.64	17	1.89	47	27
November	113	15.76	7	.97	34	25
December	146	20.35	10	1.39	43	31
Totals	1705	18.28	231	2.47	486	341

TABLE III.

TABLE SHOWING COMPARATIVE STATISTICS BETWEEN WIGAN
AND OTHER TOWNS DURING 1909.

TOWN.	Popula- tion.	Birth Rate.	Death Rate.	Zymotic Rate.	Infantile Death rate per 1,000 Births.	Respira- tory Death Rate.	Phthisis Death rate
Accrington	46,500	20·34	14·60	·75	123	3·22	·73
Birkenhead	120,955	30·8	15·9	1·4	122	3·3	1·1
Blackburn	136,135	23·0	16·4	1·5	127	3·6	0·9
Blackpool	61,450	16·69	12·67	0·96	103	2·12	0·75
Bootle	71,500	29·9	16·0	2·1	118	3·4	1·1
Bradford	293,983	18·73	14·31	0·73	117	2·69	1·07
Burton-on-Trent ...	53,500	22·6	12·3	0·45	100	1·79	1·21
Bury	59,234	20·61	16·29	0·98	129	3·85	1·18
Cardiff	195,303	25·7	13·0	0·87	103	2·24	1·19
Carlisle	50,675	22·6	13·9	0·5	125	2·3	1·26
Coventry	93,500	27·8	13·7	1·6	96	2·41	1·03
Crewe	48,584	23·05	11·9	0·41	104	2·79	0·6
Derby	129,411	24·9	13·3	1·4	121	1·94	1·0
East Ham	149,575	23·5	9·4	1·22	95	1·8	0·65
Halifax	107,750	17·0	14·4	·77	99	2·6	1·1
Hanley	68,831	31·3	18·4	2·5	149	—	0·9
Hastings	68,165	15·2	12·4	0·32	76	1·59	1·11
Huddersfield	94,740	24·55	16·30	1·05	96	2·78	1·08
Hull	275,552	29·2	14·9	1·3	114	2·7	1·0
Ipswich	74,889	23·9	12·8	·84	89	1·97	1·12
Lancaster	44,270	21·86	13·07	1·12	104	2·66	·88
Leigh	46,700	27·55	17·21	1·79	146	4·21	1·13
Maidstone	34,960	21·9	12·4	·88	88	1·9	·53
Middlesborough	105,255	31·90	19·41	2·3	159	5·2	1·1
Oldham	143,301	27·4	19·0	1·1	119	4·1	1·4
Plymouth	124,180	22·66	14·98	1·18	128	3·00	1·00
Reading	84,085	20·74	11·42	0·91	95	1·72	1·03
Rochdale	89,654	23·0	16·1	0·66	101	3·05	1·07
South Shields	117,627	28·9	15·1	1·35	138	2·37	1·11
St. Helens	95,161	32·05	18·5	3·5	149	3·6	1·02
Stockport	103,706	26·33	17·96	1·73	132	3·87	1·39
Swansea	108,110	30·6	17·8	1·90	155	3·07	1·68
Tottenham	149,283	25·39	9·9	0·6	88	0·13	0·46
West Bromwich	70,000	30·5	14·7	1·8	122	—	—
Wolverhampton	104,895	23·76	15·65	2·31	138	3·08	1·01
WIGAN	93,263	30·07	18·28	2·47	169	4·90	·72
York	87,004	23·7	11·4	0·52	100	1·73	1·03

TABLE IV.

DEATH RATE FOR WIGAN DURING THE LAST TEN YEARS.

1900	21.95	} Average for 10 years, 19.66.
1901	22.30	
1902	20.25	
1903	21.69	
1904	21.49	
1905	18.07	
1906	17.61	
1907	18.03	
1908	16.97	
1909	18.28	

Infantile Mortality.—The number of deaths of children under one year is 486, or 169 per 1,000 births, and of children over one year and under five years 316, or 3.38 per 1,000 of the population.

In regard to this infantile mortality there were 58 deaths in children who did not live more than 24 hours, and if we deduct these there would only be 428 deaths, or 149 per 1,000 births; with a large birth rate we necessarily have a larger proportion of premature births.

Senile Mortality.—The number of deaths of persons of 60 years of age and over is 341, or 3.65 per 1,000 of population.

No. OF DEATHS IN DIFFERENT WARDS IN WIGAN, 1909.

Est. Popula- tion.	Ward.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Totals.	Rate.
4,990	1	29	24	27	31	111	22.24
5,651	2	16	20	18	30	84	14.86
7,436	3	48	43	21	38	150	20.17
9,647	4	79	49	35	33	196	20.31
4,646	5	30	22	24	37	113	24.32
5,700	6	33	21	15	18	87	15.26
5,301	7	38	33	20	29	120	22.63
13,016	8	95	76	61	53	285	21.89
8,097	9	40	25	17	20	102	12.59
3,963	10	19	15	14	12	60	15.14
4,705	11	26	23	11	22	82	17.42
8,072	12	40	39	28	23	130	16.10
6,266	13	13	20	21	24	78	12.44
5,435	14	29	23	26	29	107	19.68
92,927	Total ...	535	433	338	399	1705	18.34

WIGAN CENSUS, 1901.

WARD.	Separate Families.	HOUSES.				Tenements with less than five rooms.	PERSONS.		Totals
		In-habited.	Uninhabited.				Males.	Females.	
			In Occu- pation.	Not in Occupation.	B'ding.				
No. 1, or St. George Ward ...	959	919	87	17	...	753	2406	2524	4930
No. 2, or Lindsay Ward	924	913	22	12	6	592	2310	2472	4782
No. 3, or St. Catharine Ward	1234	1193	20	5	...	863	3169	3435	6604
No. 4, or St. Patrick Ward...	1586	1567	46	10	3	954	4714	4470	9184
No. 5, or St. Thomas Ward...	939	890	42	4	...	703	2394	2451	4845
No. 6, or Poolstock Ward ...	977	950	18	3	4	523	2424	2613	5037
No. 7, or Victoria Ward	999	949	33	4	4	688	2440	2586	5026
No. 8, or St. Andrew Ward...	1684	1632	29	14	29	501	4658	4622	9280
No. 9, or Swinley Ward	1386	1368	46	41	14	453	3224	4043	7267
No. 10, or All Saints Ward..	709	709	327	28	25	360	1811	1925	3736
Canal Boats.....	...	...	...	...	...	...	60	19	79
Wards not stated .....	...	...	...	...	...	...	...	...	...
Totals.....	11388	11120	670	138	85	6390	29610	31160	60770

Percentage of increase in population, England and Wales
since Census of 1891 12·15.

The preceding period, 1881-91..... 11·65.

Increase in Wigan 10·46.

COUNTY BOROUGH OF WIGAN.

STATEMENT OF HOUSES BUILDING, EMPTY, AND INHABITED,
ON 28TH JULY, 1909.

WARD.	HOUSES.			Estimated Population at 5·465 per Inhabited House
	Building.	Empty.	Inhabited.	
1 St. George.....	1	15	914	
2 Lindsay	—	12	1035	
3 St. Catharine	12	19	1362	
4 St. Patrick	—	37	1767	
5 St. Thomas	—	14	851	
6 Poolstock	—	17	1044	
7 Victoria	—	18	971	
8 St. Andrew	24	31	2384	
9 Swinley	13	48	1483	
10 All Saints	—	16	726	
Total Parliamentary Borough.....	50	227	12537	68,514
11 West Pemberton...	—	13	865	
12 North Pemberton...	—	19	1484	
13 Central Pemberton.	8	10	1152	
14 South Pemberton...	—	17	1183	
Total Pemberton.....	8	59	4684	× 5·44 = 25,480
Total Municipal Borough.....	58	286	17221	93,994

For Pemberton the average per house inhabited at Census 1901 was 5·44.

The figures for Parliamentary Borough were kindly supplied by Mr. R. Halliwell, J.P., on completion of the Survey for Registration purposes on 28th July, 1909. For Pemberton, the figures were kindly supplied by Mr. Robert Green.

LOCAL GOVERNMENT BOARD RETURNS.

TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1909 AND PREVIOUS YEARS. NAME OF DISTRICT—WIGAN (County Borough.)

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.						Deaths of Non- residents Registered in Public Institu- tions in the District.	Deaths of Residents registered in Public Institu- tions beyond the District.	Nett Deaths at all Ages belonging to the District.		
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.						Total Deaths in Public Institu- tions in the District.	Number.	Rate.*
				Number.	Rate per 1000 Births Registered	Number.	Rate.*							
								5	6						7	8
1	2	3	4	5	6	7	8	9	10	11	12	13		
1899	60165	2148	35·36	422	195	1368	22·63	253	116		1387	22·90		
1900	60740	2177	36·00	404	190	1520	25·06	290	123		1379	22·30		
1901	60923	2245	36·40	457	203	1537	24·87	280	158		1251	20·25		
1902	61827	2311	37·42	366	158	1393	22·58	269	142		1359	21·69		
1903	62689	2221	35·47	388	174	1511	24·09	313	152		1381	21·49		
1904	64249	2223	34·59	418	188	1528	23·78	301	147		1596	18·07		
1905	88306	2918	33·04	476	163	1717	19·44	277	121		1575	17·61		
1906	89342	2920	32·68	468	160	1713	19·17	294	138		1637	18·03		
1907	90765	2728	30·05	446	163	1751	19·29	276	114		1564	16·97		
1908	92114	2934	31·85	453	154	1710	18·56	349	146					
Averages for years 1899—1908	73112	2482	34·28	429	174	1574	21·94	290	136					
1909	93263	2861	30·67	486	169	1836	19·68	337	131		1705	18·28		

* Rates in columns 4, 8, and 13 calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) 5,082. At Census of 1901 the total population at all ages was 82,428; number of inhabited houses, 15,095; average number of persons per house 5·4. Institutions within the District receiving sick and infirm persons from outside the District: Royal Albert Edward Infirmary, Union Workhouse, Wigan Sanatorium, and Pemberton Sanatorium. Is the Union Workhouse within the District? Yes.

TABLE II.—VITAL STATISTICS OF SEPARATE LOCALITIES IN 1909
AND PREVIOUS YEARS.

Name of District—Wigan County Borough.

YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1899	60165	2148	1368	422
1900	60740	2177	1520	404
1901	60923	2245	1537	457
1902	61827	2311	1393	366
1903	62689	2221	1359	388
1904	64249	2223	1381	418
1905	88306	2918	1596	476
1906	89342	2920	1575	468
1907	90765	2728	1637	446
1908	92114	2934	1564	453
Averages of Years 1899 to 1908 ... }	73112	2482	1493	429
1909	93263	2861	1705	486

TABLE III.
CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1909.
Name of District, Wigan County Borough.

Notifiable Disease.	Cases Notified in Whole District.							Cases Removed to Hospital from Each Locality.					
	At all Ages.	At Ages—Years.						H. W. Wigan.	Aspull.	Haigh.	Ince.	Pemberton.	Total cases removed to Hospital.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.						
Diphtheria (including Membranous Croup ...	34	1	10	9	4	10	—	—	—	—	—	—	—
Erysipelas	74	2	2	9	6	51	4	—	—	—	1	—	—
Scarlet fever.....	731	2	208	471	34	16	—	331	6	1	—	35	—
Enteric fever.....	93	—	6	36	25	26	—	62	5	1	—	—	—
Puerperal fever	8	—	—	—	8	—	—	—	—	—	—	—	—
Phthisis	25	—	1	7	17	—	—	19	1	—	1	—	—
Rheumatism	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	965	5	227	532	94	103	4	412	12	2	1	36	463

Isolation Hospital—Wigan Sanatorium, Whelley, Wigan. Total available beds, 103.
Cottage Hospital, Pemberton, Wigan.
Mark (H) the locality in which the hospital is situated. Mark (W) the locality in which the workhouse is situated.

TABLE IV.—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1909.

Name of District—Wigan (County Borough).

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.							Total Deaths in Public Institutions in District.
	All Ages	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards.	
Measles	82	14	65	3	—	—	—	—
Scarlet fever.....	16	—	8	8	—	—	—	—
Whooping-cough	47	14	31	2	—	—	—	—
Diphtheria and mem- branous croup	7	1	6	—	—	—	—	—
Fever—Enteric	18	—	2	7	4	5	—	—
Diarrhœa	51	43	6	1	—	1	—	—
Enteritis	51	44	4	—	—	1	2	—
Puerperal fever	5	—	—	—	1	4	—	—
Erysipelas.....	5	2	—	—	—	2	1	—
Phthisis (Pulmonary Tuberculosis)	68	1	1	4	15	45	2	—
Other tubercul'r diseases	55	15	20	9	1	10	—	—
Cancer, malign'nt dis'ase	48	—	—	—	—	41	7	—
Bronchitis	166	37	14	—	1	66	48	—
Pneumonia	292	83	94	7	18	73	17	—
Alcoholism	5	—	—	—	—	5	—	—
Cirrhosis of liver... }	6	—	—	—	—	5	1	—
Premature birth	72	72	—	—	—	—	—	—
Diseases and accidents of parturition	7	—	—	—	2	5	—	—
Heart diseases	99	1	2	7	6	63	20	—
Accidents	40	—	14	4	5	16	1	—
Suicides	7	—	—	—	—	6	1	—
Rheumatism	17	—	—	5	5	7	—	—
Convulsions.....	15	11	4	—	—	—	—	—
Wasting	50	37	12	1	—	—	—	—
All other causes	476	111	33	19	13	157	143	—
All causes	1705	486	316	77	71	512	243	337

STATEMENT OF DEATHS OCCURRING IN WIGAN, BUT NOT BELONGING TO WIGAN.

Deaths from :—

Accidents	32	Years.		
Bronchitis	9	Under	1	4
Cancer	7	1 & under	5	10
Heart Affections	7	5	15	11
Other Diseases	55	15	25	10
Phthisis	5	25	35	12
Pneumonia	9	35	45	14
Other Tubercular Diseases	1	45	55	19
Suicide	1	55	60	4
Scarlet	1	60	65	12
Alcoholism	1	Over	65	35
Wasting Diseases	2			
Premature Birth	1			

TABLE V.

BOROUGH OF WIGAN (COUNTY BOROUGH).

INFANTILE MORTALITY DURING THE YEAR 1909.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under 1 Year.
<i>All Causes ;</i>																	
Certified	95	22	18	13	148	27	32	38	33	36	36	29	22	28	26	30	485
Uncertified	1				1												1
<i>Common Infectious Diseases :</i>																	
Measles								1				1	2	3	3	4	14
Diphtheria (including Membranous Croup)...														1			1
Whooping Cough								1			4	3	2	2	1	1	14
<i>Diarrhoeal Diseases :</i>																	
Diarrhoea, all forms				1	1	1	3	3	5	10	4	4	1	3	4	4	43
Enteritis, Muco-enteritis, Gastro-enteritis...		2		4	6	6	7	5	3	1	3	4	2	2	1	2	42
Gastritis, Gastro-intestinal Catarrh...							1				1						2
<i>Wasting Diseases :</i>																	
Premature Birth	55	7	3	1	66	2	1	1		1			1				72
Congenital Defects.....	8	1	2	3	13	1		1						1			16
Injury at Birth																	
Want of Breast-milk, Starvation...			1		1		1			1							3
Atrophy, Debility, Marasmus...	16	1	3	1	21	1	7	4	5	2	5	2	1	3		2	53
<i>Tuberculous Diseases :</i>																	
Tuberculous Meningitis..							1	2			2		1	1			7
Tuberculous Peritonitis :																	
Tabes Mesenterica...											1			1			2
Other Tuberculous Dise's							1	2			2				1	3	9
<i>Other Causes :</i>																	
Erysipelas			1		1				1								2
Meningitis (not Tuber'l's)		1	1		2			2	2	2		1	2	1		1	13
Convulsions.....	3	2			5	3	1		1						1		11
Bronchitis		2	4		6	3	3	5	4	5	1		2	3	4	1	37
Laryngitis													1				1
Pneumonia			1	3	4	3	3	6	9	11	10	12	4	4	9	8	83
Other Causes	14	6	2	1	23	7	3	5	3	3	3	2	3	3	2	4	61
TOTALS.....	96	22	18	13	149	27	32	38	33	36	36	29	22	28	26	30	486

District of Wigan.

Population (estimated to middle of 1909), 93,263.

Births in the year—Legitimate, 2,720.

„ „ Illegitimate, 141.

Deaths from all Causes at all Ages, 1,828.

LIST OF STREETS IN WHICH DEATHS FROM THE FOLLOWING DISEASES OCCURRED IN 1909.

[illegible]

Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Others.	Total.
Douglas Street ..	12	...	1	...	...	...	...	...	1	...	...	...	...	2
ake Street	14	...	...	...	...	...	...	...	1	1	1	...	3	6
very Street	1	...	...	...	...	...	...	...	...	1	...	...	3	4
his Street	2	...	...	...	...	...	...	...	...	...	...	...	1	1
Elizabeth Street.	3	...	...	...	...	...	...	...	...	...	...	...	1	1
lwin Street	4	...	...	...	...	...	...	3	...	...	...	...	3	3
gerton Street.	5	...	...	...	...	...	1	...	...	1	...	...	2	2
eanor Street...	6	...	...	...	...	...	...	1	...	1	...	...	2	4
lith Street	7	...	...	...	...	...	...	...	1	...	...	...	2	3
eleston Street	9	...	...	...	...	...	...	...	...	1	...	...	1	2
arl Street	9	...	...	...	...	...	...	...	...	...	...	...	1	1
ilen Street	10	...	...	...	...	...	...	1	...	...	...	...	1	1
ngine Fold	11	...	...	...	...	...	...	...	...	1	...	...	1	2
arl Street	12	...	...	...	...	...	...	...	...	...	...	...	1	1
lesmere Road	13	...	...	...	...	...	...	...	...	...	...	...	2	2
nfield Street ...	13	...	...	...	...	1	...	2	...	...	...	...	9	12
oundry Street.	1	...	...	...	...	...	1	...	...	...	...	...	1	1
lorence Street.	3	...	...	...	...	...	...	...	...	1	...	...	1	2
rederick Street	3	...	...	...	...	...	...	...	...	...	...	...	1	1
isher's Y rd...	5	...	...	...	...	...	...	...	...	...	...	...	2	2
arrimond's row	5	...	...	...	...	...	...	...	...	1	...	...	1	1
nith Street	6	...	...	...	...	...	...	...	...	...	...	...	1	1
rancis Yard	7	...	...	...	...	...	...	...	...	...	...	...	1	1
rog Lane	8	...	...	...	...	...	1	...	...	...	...	...	1	1
rancis Street ..	8	...	...	...	...	...	...	...	...	...	...	...	1	1
field Street	8	...	1	...	...	...	...	...	...	...	...	...	2	3
irst Avenue ...	8	...	...	...	...	...	2	...	8	...	...	...	1	5
olly	9	...	...	...	...	...	...	...	...	...	...	...	1	1
reckleton St...	9	...	...	...	...	...	...	...	...	...	...	...	1	1
lemming's Yd.	9	...	...	...	...	...	...	...	...	...	...	...	1	1
oy Street	10	...	...	...	...	...	...	2	...	...	...	...	3	5
rog Lane ...	10	...	...	...	...	...	...	...	...	...	1	...	1	2
itzadam Street	10	...	...	...	...	...	...	...	...	...	...	...	2	2
airhurst's Yd.	11	...	...	...	...	1	...	...	...	...	...	...	...	1
actory Street..	11	...	...	...	...	...	...	1	...	...	...	...	1	2
leet Street	11	...	...	...	...	...	...	1	...	...	...	...	5	6
reenough St...	1	...	...	...	...	...	...	...	...	...	...	...	1	1
reenough St...	2	...	...	...	...	...	1	...	1	...	...	...	1	3
reat Acre	2	...	...	...	...	...	...	...	...	...	...	...	1	1
olborne Street.	3	...	...	...	...	...	1	...	4	...	...	...	1	7
askell Street...	3	...	...	...	...	...	...	...	...	...	...	...	2	2
undy's Yard ..	4	...	...	...	...	...	...	...	1	...	...	...	1	2
reeno'gh's Row	4	...	...	...	...	...	1	...	1	...	...	...	5	7
ordon Street...	4	...	...	...	...	...	...	...	1	...	...	...	...	1
arden Street...	4	...	...	...	...	...	1	...	...	...	...	...	2	3
reen Street ...	5	...	...	...	...	...	...	...	...	...	...	...	2	2
errard Street ..	6	...	1	...	...	...	...	...	...	...	...	...	1	2
reat George St.	7	...	...	1	...	...	...	...	2	...	2	...	7	12
idlow Lane ...	8	...	...	...	...	...	...	...	4	...	1	...	8	13
idlow Avenue	8	...	...	...	...	...	...	...	...	...	...	...	1	1
orman Street...	8	...	...	...	...	...	...	...	...	...	...	...	1	1
lebe End St ...	8	...	...	...	...	...	...	...	...	...	...	...	1	1
Glassbrook St...	8	...	...	...	...	...	1	...	1	...	...	...	1	3
Golden Cross Yd	9	...	...	...	...	...	...	...	...	...	...	...	1	1
Grayson's Yard	9	...	...	...	...	...	...	...	...	...	1	...	1	1
Gibraltar Street	11	...	...	...	...	...	...	1	...	...	...	...	1	2
Gore Street	11	...	...	...	...	...	...	1	...	...	...	...	1	2
Greenall's Yard	11	...	...	...	...	...	...	...	...	...	...	...	1	1
Grosvenor Street	12	...	...	...	...	...	...	...	1	...	...	...	1	1
Hart's Yard	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Hieland Road...	2	...	...	...	...	...	...	...	1	...	...	...	1	1
Higham's Yard	3	...	...	...	...	...	...	...	1	...	...	...	1	2
Holland Street	3	...	...	...	...	1	...	5	1	...	1	...	1	8
Higham Street...	4	...	...	...	...	1	1	...	1	...	...	...	2	4
Heyes's Yard ...	4	...	...	...	...	...	...	...	...	1	...	...	...	1
Hardybutts	4	...	...	...	...	...	...	1	...	4	...	1	5	11
Hambleton St....	4	...	...	...	...	...	...	...	...	1	...	...	1	2
Halliwell Terra.	4	...	...	...	...	...	...	...	...	...	...	...	1	1
Hartley Avenue	4	...	...	...	...	...	...	...	...	...	...	...	1	1
Hodson Street...	5	...	...	...	...	...	...	...	...	...	...	...	1	1
Hopwood Street	5	...	...	...	...	...	...	...	...	1	...	...	...	1
Howarth's Yard	7	...	...	...	...	...	...	...	...	...	...	...	2	2
Hill Street	8	...	...	...	...	...	...	...	...	1	...	...	...	1
Hey Street	8	...	...	...	...	...	...	...	...	...	...	...	1	1
Horsefield Street	8	...	...	...	...	...	...	...	...	...	...	...	2	2
Holt Street	8	...	...	...	...	...	...	...	1	1	1	...	...	3
Hodges Street...	8	...	...	...	...	...	...	1	...	1	...	...	5	7
Hesketh's Yard	9	...	...	...	...	...	...	...	...	...	...	...	1	1
Holme Terrace	9	...	...	...	...	...	...	...	...	1	...	...	...	1
High Street	9	...	...	...	...	...	...	...	...	...	...	...	1	1
Hilton Street ...	9	...	...	1	...	...	...	...	...	...	...	...	1	2
Hornby Street	9	...	...	...	...	...	...	...	...	1	...	...	...	1
Hodges Yard ...	10	...	...	...	...	...	...	...	...	...	...	...	1	1
Harrogate Street	10	...	...	...	...	...	...	...	...	1	...	...	1	2
Hallgate	10	...	...	...	...	...	...	...	...	4	...	...	6	10
Hartley Street...	11	...	...	...	...	...	...	1	...	...	...	...	1	1
Harrison Street	12	...	...	...	...	...	...	...	...	2	...	...	2	5
Hopwood Street	12	...	...	...	...	...	1	...	2	...	...	...	2	2
Highfield St....	13	...	...	...	...	...	...	...	...	...	...	...	2	2
Holt Street	14	...	...	...	...	...	...	...	...	...	...	...	2	2
Isabella Street...	3	...	...	...	...	...	...	...	...	1	...	...	2	3
Ironmonger Lane	5	...	...	...	...	...	...	1	...	1	...	...	1	3
Ingram Street...	8	...	...	...	...	...	...	...	1	3	...	...	4	8
Jockey Terrace..	1	...	...	...	...	...	1	...	1	...	...	...	...	2
John Street	4	...	...	...	...	...	1	...	1	...	...	...	4	6
James Street ...	5	...	...	...	...	...	...	...	...	...	...	...	2	2
Jackson's Yard	7	...	...	...	...	...	1	...	...	...	...	...	...	1
Johnson Street.	11	2	2
Kay Street	1	2	2
Kendrick Street.	3	1	3	4
Kirkless Street...	3	2	

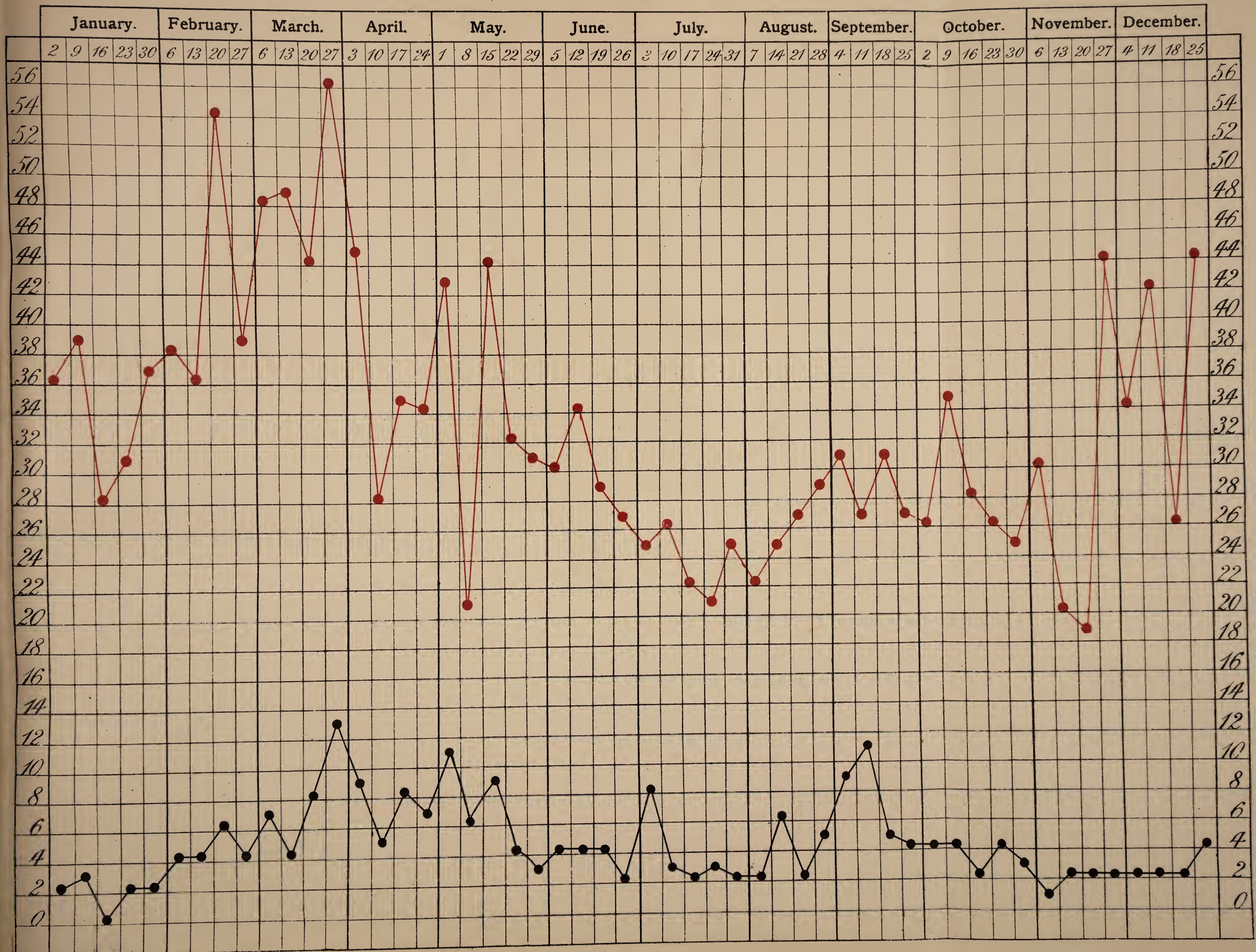
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Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Other.	Total.	Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Other.	Total.	
Stratford Street.	8												1	1	Vaughan Street.	2									2			1	3	
Springfield Road	8							1				1	4	6	Vine Street	2								1				1	2	
Topforth Street	8									2				2	Vauxhall Road..	4												1	1	
Second Avenue..	8						1						2	3	Victoria Street..	5									3			4	7	
Standishgate	9									4			2	6	Vere Street	7												5	5	
Winley Road	9									4			6	10	Victoria Avenue	8									1			1	2	
Winley Street...	9					1							1	2	Victoria Street..	12							1		1			3	5	
Winley Lane	9											1		1	Withnall Street.	1												2	2	
HandycroftAven.	9												1	1	Woods Square...	1						1							1	1
Carisbrick St....	9												1	1	Walmsley Yard	1								2					2	2
Springfield St...	9												1	1	Westminster St.	2							1		1			1	3	
Button Mill															Windsor Street.	2									1				1	1
Common	9									1				1	Whelley	2						1	1				5	8		
Stirling Street...	9							1		1			1	3	Wright Street ...	2							1		2			2	5	
Somerville Road	9												1	1	Whelley.....	3	1							1	4			3	9	
Chelmerdine St..	10									1				2	Westmorel'ndSt	3							1					2	1	
Spring Gardens..	10												3	3	William Street..	3												2	2	
Short Street.....	11												1	1	Well Street	3												2	2	
Silver Street.....	11									1			3	4	Wellington St...	4								1				2	3	
Marginson Street	12							1					4	5	Warrington L'ne	4										1		5	6	
Cot Lane.....	12			1						5			12	18	Wallgate	5									3			1	4	
Ohio Street	12									1			5	6	Worthington Yd	5												1	1	
Stanley Street...	12									1			1	2	Woods' Grove ...	5								1					1	
Swift's Square..	12												1	1	Wood Street.....	5								1				4	1	
Swift Street.....	12											1		1	Wood Yard.....	5						2		1					1	
Andon Street ...	13												1	1	Wallgate	6												2	2	
Redbrook Street	13												2	2	Walmesley Av.	6												1	1	
Southern Street.	13												1	1	Wignall Street...	6									1			1	2	
Sydney Street...	14												1	1	Walmer Street..	6						1			1			1	3	
Turner Street ...	2												4	4	Wilcock Street..	7						1			2			5	8	
Beck Street	4												2	2	Wallgate	7									2			3	5	
Lipping Street...	6						1							1	Waddington's Bu	7									1			1	2	
Pickle Street ...	7											1		1	Walkers' Yard .	7									1				1	
Taylor Street ...	7									1				1	Woodhouse L'ne	8		1						4			17	22		
Thicknesse															Wigan Lane.....	9							1		5	1		4	11	
Avenue	8					1				3			3	7	Wright's Yard..	9												1	1	
Throstle Nest															Wiend	10												1	1	
Avenue	8									2				2	Wallgate	10												1	1	
Third Avenue ...	8												1	1	Woodcock Street	10												1	1	
Taberner's Yard	11												1	1	Worsley Street..	11												1	1	
Unstall Lane ...	13		1						1	8			4	9	Warrington Rd.	12						1		1	3			1	6	
Thompson Street	14									2			1	3	Wenlock Street	12							1		2				2	
Horn Street ...	14									1				1	Westminster St.	12							1					2	3	
Turner's Yard...	14							1		1			4	6	Wilshaw Street .	12			1						1				2	
Upper Morris St.	1									4		1	1	6	Winstanley St...	12												1	1	
Union Street ...	4									1			3	4	Wood Street.....	12												2	2	
Union Work'se	8								1	32	1	3	81	119	Wesley Street ...	13												1	1	
Upper St.															Warrington Rd.	14						1		1	7		1	16	26	
Stephen Street	8							1					1	2	Yates Yard	7												3	3	
Upper Diccons'n															York Street	7												4	4	
Street	9	1								1			2	3	York Street East	7									1			1	2	

DEATH RETURNS CHART, 1909.—No. 1

All Causes (Red)

Zymotics (Black)



PART II.

THE ZYMOTIC DISEASES.

CONSTITUTIONAL DISEASES.

LOCAL DISEASES.

INQUESTS.

CAUSES OF DEATH.

THE ZYMOTIC DISEASES.

The Mortality from the principal Zymotic Diseases, namely, Small Pox, Scarlet Fever, Measles, Whooping Cough, Typhus, Enteric Fever, Puerperal Fever, Diphtheria, and Diarrhœa, gives us a rate of 2·47 per 1,000 of the population, against 1·85 in 1908.

The deaths numbered 231.

The Zymotic rate, 2·47, is made up as follows :—

DEATHS PER 1,000.		
	1909.	1908.
Small Pox.....	...	...
Scarlet Fever	·17	·11
Measles	·87	·054
Whooping Cough	·50	·26
Typhus .....	...	...
Enteric	·19	·28
Diphtheria.....	·07	·10
Diarrhœa	·54	·94
Puerperal	·053	·086
Erysipelas.....	·053	..

The Zymotic rate during each of the four quarters was :

	1909.	1908.
1st Quarter	2·55	·87
2nd „	3·28	·82
3rd „	2·66	3·57
4th „	1·45	2·17

TABLE OF ZYMOTIC DISEASES.

	Notified.	Died.	Case Mortality per cent.
Small Pox .....	...	...	...
Scarlet Fever	730	16	2·19
Enteric Fever	93	18	19·35
Diphtheria.....	34	7	20·58
Measles .....	...	82	...
Whooping Cough.....	...	47	...
Diarrhœa .....	...	51	...
Puerperal Fever	8	5	62·50
Erysipelas	75	5	6·66

DEATH RATES, 1909.

Disease.	No. of Deaths.	Rate.
Small Pox .....	...	...
Measles	82	·87
Scarlet Fever	16	·17
Diphtheria and Croup	7	·07
Whooping Cough	47	·50
Enteric Fever	18	·19
Erysipelas	5	·053
Septicæmia .....	...	...
Puerperal Fever	5	·053
Diarrhœa	51	·54
Phthisis	68	·72
Other Tubercular Diseases	55	·58
Bronchial Diseases	166	1·77
Pulmonary Diseases	292	3·12
Wasting Diseases of Infants	50	·53
Convulsive „ „	15	·16
Cancer	48	·51
Rheumatism	17	·18
Diseases of Heart	99	1·05
Other Diseases	664	7·10
Total	1705	18·28

Number of notifications compared with other years :—

Disease.	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Small Pox	0	0	0	0	0	4	66	2	3	0	0	0	0
Typhus	1	0	0	0	0	0	0	0	0	0	0	0	0
Scarlet	191	420	245	484	264	557	362	191	325	256	175	220	730
Enteric ...	64	93	173	104	71	76	51	56	133	138	107	103	93
Continued	0	0	0	0	0	0	0	0	0	0	0	0	0
Diphtheria	23	12	13	20	49	58	38	9	49	49	66	36	34
Puerperal...	7	4	4	4	8	10	5	8	16	9	8	12	8
Cholera	1	0	0	0	0	0	0	0	0	0	0	0	0
Erysipelas	0	0	0	39	65	65	51	47	92	86	77	71	75
Mem. Croup	0	0	0	0	0	2	0	0	0	0	0	0	0
Total	287	529	435	651	457	772	573	313	618	538	433	442	940

Analysis of Notifications :—

1909.	Jan.	Feb.	Mar	Apr.	May	Jun	July	Aug	Sep.	Oct.	Nov	Dec.	T'tl.
Small Pox...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet	30	36	35	47	69	74	102	84	79	64	54	56	730
Typhus	11	2	8	7	11	5	1	3	19	7	12	7	93
Continued...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria..	5	2	2	3	4	1	7	2	1	4	1	2	34
Puerperal...	1	3	...	...	1	...	...	...	1	1	1	...	8
Erysipelas ..	8	3	7	4	9	6	7	4	5	5	8	9	75
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	55	46	52	61	94	86	117	93	105	81	76	74	940

SMALL POX.

We have had no cases of Small Pox during the year, but the Doecker Hospital is ready and properly equipped.

VACCINATION RETURNS, 1908—1909.

The following Vaccination Returns have been supplied to me by the Vaccination Officer, Mr. R. Halliwell, J.P. :—

	January to June, 1909.	The whole of 1908.
Births Registered	1,092	2,137
Successfully Vaccinated	721	1,597
Insusceptible	—	6
Exemptions, Section 2, 1899	163	200
Died Unvaccinated	114	223
Postponed by Certificates	20	9
Left Town and Reported to other Districts	4	21
Cannot Trace	8	34
Refusals and not Accounted for ..	62	47

Total Number of Successful Vaccinations, all ages, 1905 .. 1868

„ „ „ 1906 .. 1801

„ „ „ 1907 .. 1754

„ „ „ 1908 .. 1738

„ „ „ 1909 .. 1371

Deaths of Infants under 12 months in 1902 368

„ „ 1903 399

„ „ 1904 405

„ „ 1905 385

„ „ 1906 328

„ „ 1907 325

„ „ 1908 332

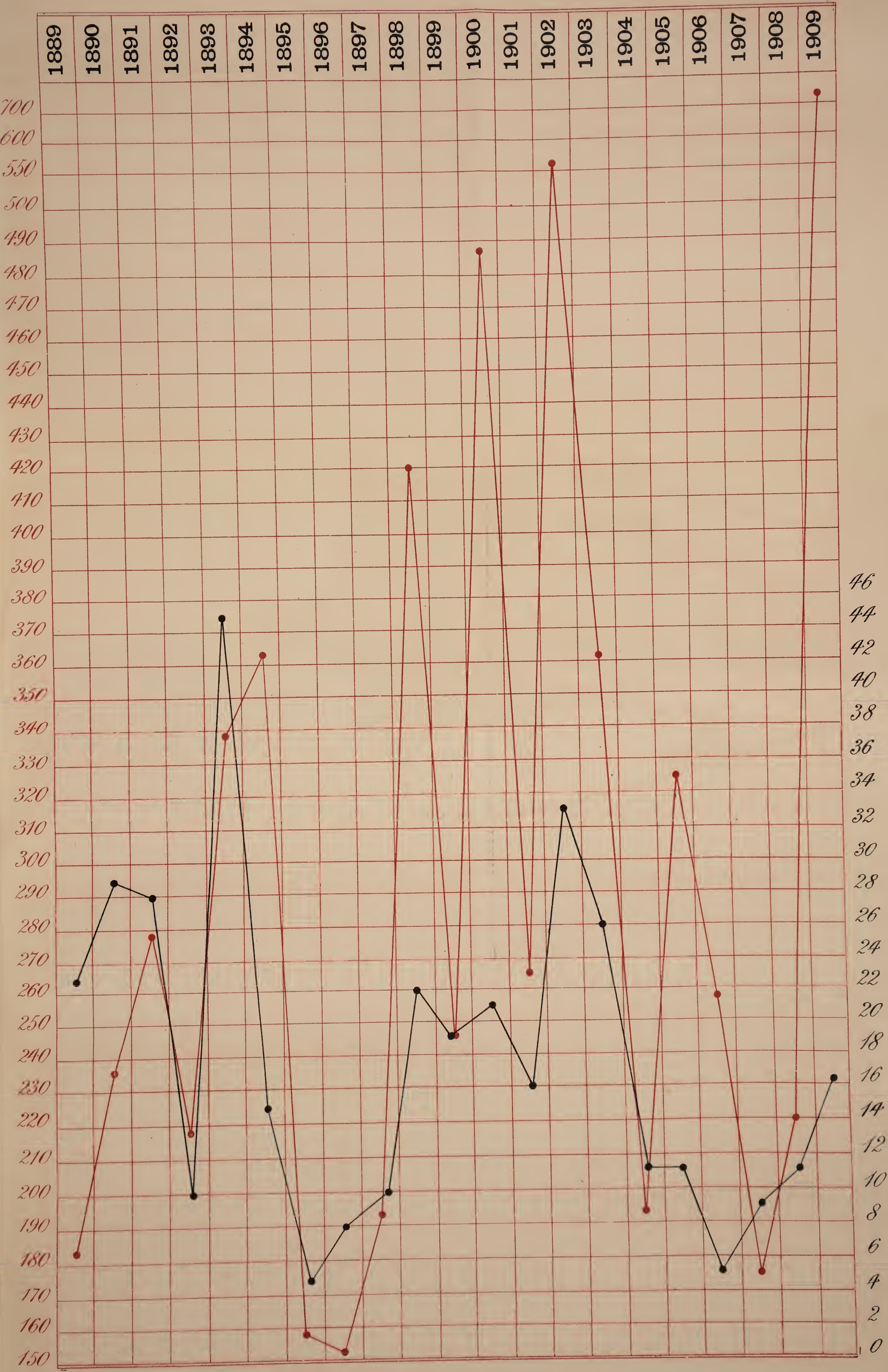
„ „ 1909 350

LIST OF TOWNS IN WHICH CASES OF SMALL-POX HAVE
OCCURRED DURING THE YEAR 1909.

Date.	Town.	No. of Cases.	Date.	Town.	No. of Cases.
Jan. 16—	Bristol	1	July 3—	Cardiff	1
„	Birkenhead.....	1	Aug. 21—	London	1
„ 23—	Bristol	2	„ 28—	Blackburn	1
Feb. 6—	Bristol	7	Sept. 25—	Blackburn	1
„ 13—	Bolton	1	Oct. 9—	London.....	1
„ 20—	Bristol	4	„ 16—	Kingston-on-Hull ..	4
„ 27—	Bristol	1	„	London	2
March 6—	Bristol	5	„ 23—	Liverpool	1
„	Stockport	3	„	Kingston-on-Hull ..	2
„	London	1	„ 30—	Newport (Mon.) ...	1
„ 13—	Bristol	2	„	London	1
„	Bolton	1	„	Southampton	2
„	London	2	„	Liverpool	1
„ 20—	Bristol	1	„	Cardiff	1
„	London	2	Nov. 6—	Swansea	1
April 3—	Bristol	5	„	London	2
„	Bolton	2	„ 13—	London	3
„	Middleton	1	„ 20—	London	1
„ 10—	Bristol	2	Dec. 4—	Liverpool	1
„	Cardiff	1	„ 11—	London	1
May 8—	Walthamstow ...	16	„ 18—	Southampton	1
„ 15—	Bristol	2	„ 25—	Tottenham	1
„ 22—	Bristol	2	„	Liverpool	1
„ 29—	Bristol	1	„	London	2
June 5—	Farnworth	1			
„	Fleetwood	1			
„ 19—	Bolton	1			

SCARLET FEVER.

CHART:—Cases notified in red ● Deaths in Black ●



SCARLET FEVER.

Number of Notifications..... 730

Number of Deaths 16

Death-rate per 1,000 of Population..... 17

The number of notifications of this disease is for 1909, 730, against 220 in 1908; and 16 deaths, against 11 in 1908.

	Notifications.	Removed to Sanatorium.	Deaths.
January	30	15	0
February	36	25	1
March	35	21	1
April.....	47	30	1
May	69	24	1
June	74	35	2
July	102	32	1
August	84	41	1
September	79	27	1
October	64	35	1
November	54	20	3
December	56	26	3
Total.....	730	331	16

We have had a considerable increase of Scarlet Fever over previous years, the disease having been in Epidemic form. The percentage of removals to Sanatorium has been 45·34, against 62·72 in 1908, and 53·14 in 1907.

The number of return cases during the year was 10, and the causation has been difficult to define. In some cases it appeared that the discharged patient got a coryza or cold, and thus infected the other child. We have had 16 deaths amongst those notified, 7 occurred in hospital, and these were severe cases when sent in; this equals 7 in 45·34 per cent. of cases removed, and the remaining 9 cases were in the remaining 54·66 per cent. left at home, so we may take it that the fatality amongst those cases left to be nursed in better houses, with parental care and nursing, gives us a death-rate per cent. of 2·25, against 2·11 in hospital.

SCARLET FEVER.—RETURN CASES, 1909.

1.—154, ORMSKIRK ROAD.—First case notified and removed to Sanatorium January 6th, 1909, returned home on February 12th, 1909.—Second case commenced on March 2nd, 1909, was notified and arranged to be isolated at home on March 4th, 1909.—Third case commenced on March 5th, 1909, was notified and arranged to be isolated at home on March 8th, 1909.

2.—1, DEAN STREET.—First case notified on April 10th, 1909. Removed to Sanatorium April 13th, 1909, returned home on May 21st, 1909.—Second case commenced on May 27th, 1909, was notified on May 29th, 1909, removed to Sanatorium on June 1st, 1909.

3.—10, BUCKLEY HOUSES.—First case notified May 10th, 1909. Removed to Sanatorium May 11th, 1909, returned home on June 22nd, 1909.—Second case commenced on June 27th, 1909, was notified and removed to Sanatorium on June 30th, 1909.

4.—387, ORMSKIRK ROAD.—First case was notified and removed to Sanatorium on June 19th, 1909, returned home on August 3rd, 1909.—Second case commenced on August 10th, 1909, was notified on August 16th, 1909, and removed to Sanatorium on August 18th, 1909.

5.—1, JACKSON'S YARD, APPLETON STREET.—First case notified and removed to Sanatorium on July 26th, 1909, returned home on August 26th, 1909.—Second case commenced August 30th, 1909, was notified and removed to Sanatorium on August 31st, 1909.

6.—6, LINDSAY STREET.—First case was notified and removed to Sanatorium on July 17th, 1909, returned home on August 26th, 1909.—Second case commenced on August 29th, 1909, was notified and removed to Sanatorium on September 1st, 1909.—Third case commenced on September 6th, 1909, was notified and removed to Sanatorium September 8th, 1909.

7.—3, FRANCIS STREET.—First case was notified on August 9th, 1909, removed to Sanatorium August 10th, 1909, returned home on September 14th, 1909.—Second case commenced on September 24th, 1909, was notified and arranged to be isolated at home on September 25th, 1909.

8.—8, PORTLAND STREET.—First case notified on September 3rd, 1909, and removed to Sanatorium, returned home on October 15th, 1909.—Second case commenced on October 19th, 1909, and was notified on October 21st, 1909.—Third case commenced October 22nd, 1909, and was notified on October 22nd, 1909. Both were removed to the Sanatorium on October 22nd, 1909.

9.—148, WHELLEY.—First case was notified on September 18th, 1909, removed to Sanatorium on September 21st, 1909, returned home on October 26th, 1909.—Second case commenced on October 29th, was notified and removed to Sanatorium on November 1st, 1909.—Third case commenced November 5th, 1909, was notified and removed to Sanatorium November 8th, 1909.

10.—46, ENFIELD STREET.—First case was notified on November 9th, 1909, removed to Sanatorium November 10th, 1909, returned home on December 21st, 1909.—Second case commenced on December 24th, 1909, was notified and arranged for isolation on December 29th, 1909.

BOROUGH OF WIGAN.

Notification of Disease adopted March, 1889. Hospital
opened 1891.

SCARLET FEVER.

Year.	Estim. Popula- tion.	Cases Notified.	Under Five Years.	Deaths.	Cases in Hospital.	Attacks per 1,000.	Deaths per 1,000.	Rem v'ls Per cent. per Annum.
1889	53916	182	76	23	15	3.37	.42	8.24
1890	54440	235	163	29	83	4.31	.42	35.31
1891	55084	278	198	28	150	6.86	.50	39.68
1892	56040	218	117	10	79	3.89	.17	36.69
1893	57483	336	211	45	183	5.84	.78	54.49
1894	58529	361	215	15	200	6.16	.25	55.40
1895	59469	157	84	5	92	2.64	.08	58.59
1896	60235	151	83	8	43	2.50	.13	28.47
1897	61202	191	84	10	95	3.12	.16	49.74
1898	61697	420	220	22	189	6.80	.35	45.00
1899	62630	245	129	19	142	3.91	.30	57.95
1900	63440	485	159	21	211	7.63	.33	42.59
1901	60923	264	92	16	155	4.00	.26	58.70
1902	61827	557	190	33	246	9.00	.53	44.16
1903	62689	362	119	26	205	5.77	.41	56.63
1904	64249	191	88	11	130	2.97	.17	68.06
1905	88306	325	131	11	207	3.68	.12	63.69
1906	89342	256	96	5	126	2.87	.055	49.21
1907	90765	175	70	9	93	1.92	.099	53.14
1908	92114	220	69	11	138	2.38	.11	62.72
1909	93263	730	207	16	331	7.82	.17	45.34

AGE INCIDENCE OF SCARLET FEVER.

	MONTHS.				YEARS.												Total.
	1-3	3-6	6-9	9-12	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-15	15-20	20 & over	
Ages																	
Total Number of Notifications.....	0	0	1	1	23	33	73	71	85	90	74	59	40	125	21	29	730
Under 1 year	2																
From 1 to 5 years					205												
" 5 to 10 years					348												
Over 10 years					175												
Sickness rate per 1,000 of the Popu- lation at each age	0	0	.010	.010	.24	.40	.78	.75	.90	.96	.79	.63	.42	1.33	.22	.31	7.81
Deaths at different ages	0	0	0	0	3	0	3	2	5	1	0	0	2	0	0	0	16
Percentage Mortality	0		0	0	13.0	0	4.1	2.8	5.8	1.1	0	0	5.0	0	0	0	2.19
All under 1 year	0																

MEASLES.

The deaths numbered 82, or a rate of .87 per 1,000 of the population. Measles was prevalent in the months of March, April, May, and June, and then we had a decline. 82 deaths, however, occurred during the year.

1909.	Deaths in 1909.	Deaths in 1908.
January	—	—
February	2	—
March	25	—
April	24	—
May	17	—
June	12	—
July	1	3
August	1	—
September	—	1
October	—	1
November	—	—
December	—	—
TOTAL	82	5

The list of Schools closed will be found in my introduction to this report.

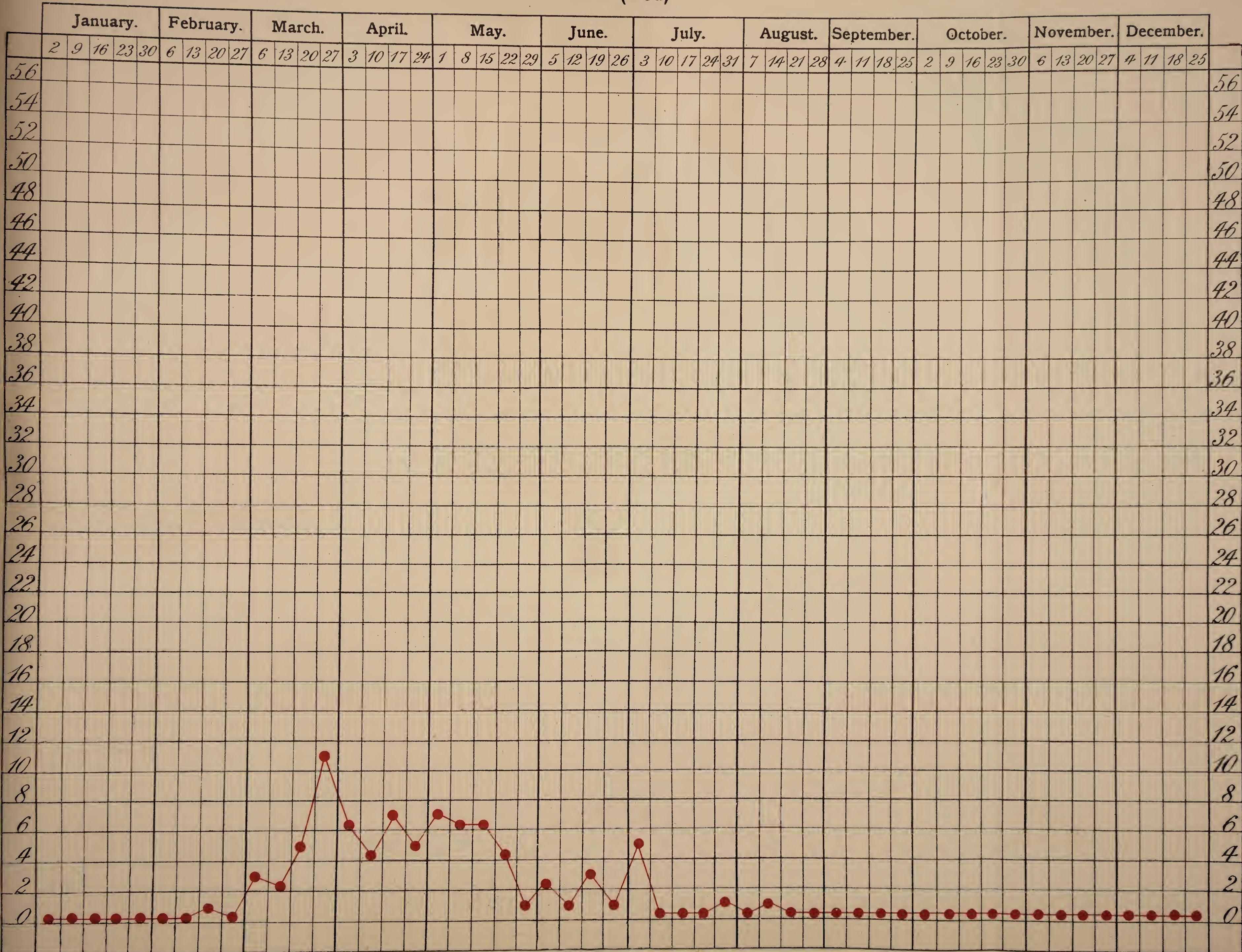
WHOOPING COUGH.

The number of deaths from Whooping Cough is 47, against 24 in 1908, and 3 in 1907. The number is shown in the following table:—

1909.	Deaths in 1909.	Deaths in 1908.
January	4	1
February	12	1
March	7	0
April	5	2
May	3	0
June	3	6
July	3	2
August	3	1
September	5	0
October	0	1
November	2	4
December	0	6
Total	47	24

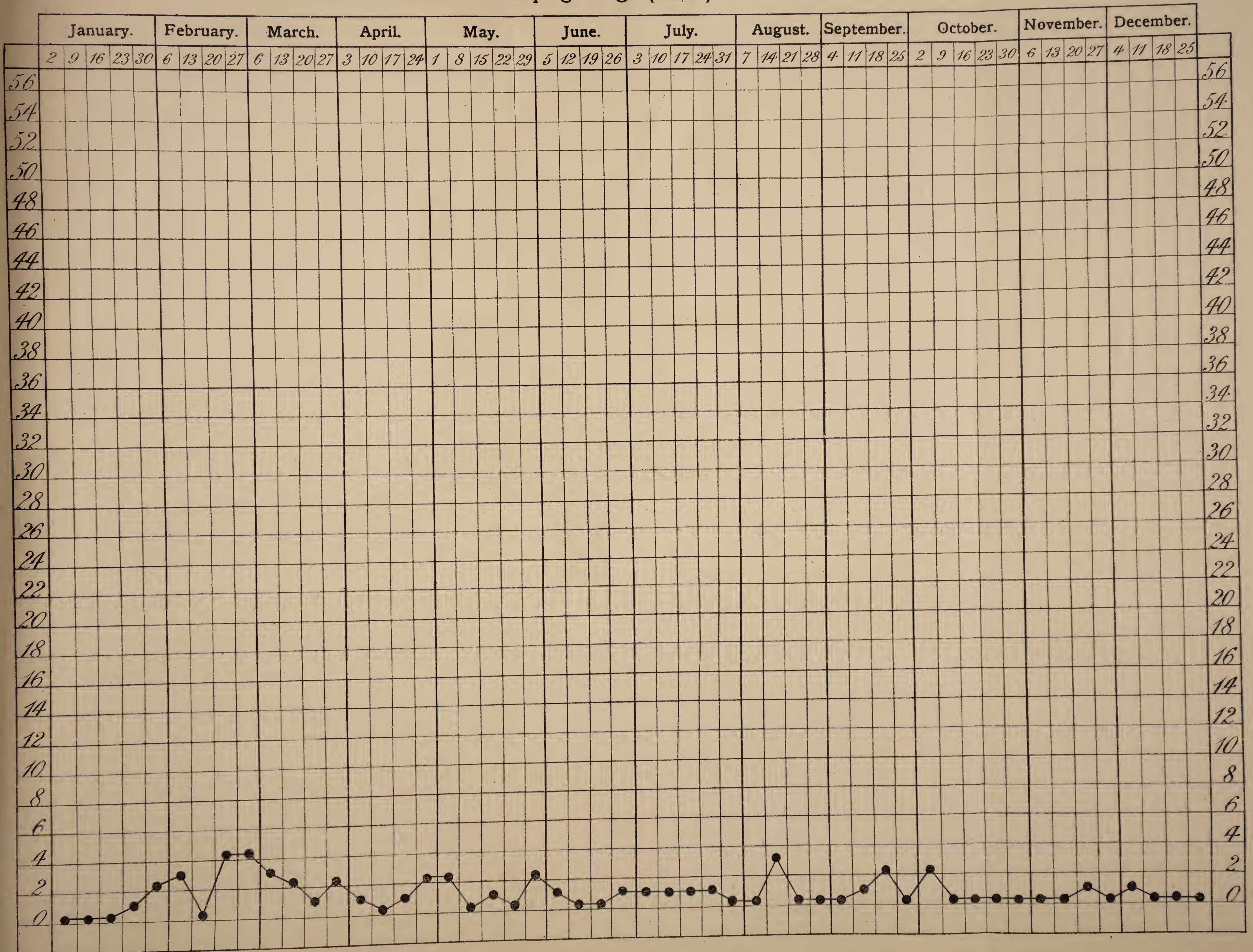
DEATH RETURNS CHART, 1909.—No. 2.

Measles (Red)



DEATH RETURNS CHART, 1909.—No. 3.

Whooping Cough (Black).



The deaths were more in 1909 by 23. It is a very dangerous disease owing to the lung affections which supervene, and is highly infectious, but it is difficult to persuade mothers of its seriousness.

TYPHUS FEVER.

I am pleased to say we have had no notifications of this disease during the year.

ENTERIC FEVER.

Number of Notifications	...	...	93
Number of Deaths	...	...	18
Mortality per 1,000 of population	...	...	19
Removed to Sanatorium	...	...	62

We have for 1909, 93 notifications, against 103 in 1908, and 107 in 1907. A few of the cases removed to the Sanatorium turned out to be cases of other febrile diseases.

The number of deaths were 18, or 19·35 per cent. of the cases notified, against a rate of 25·24 per cent. in 1908, and 20·56 per cent. in 1907.

Removed to Sanatorium.

January	5
February	0
March	6
April	6
May	10
June	4
July	0
August	3
September	10
October	3
November	7
December	8
	<hr/>
	62
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We had no specimens of blood examined at the Thompson Yates Laboratory, Liverpool.

The mortality rate is less, which is favourable. We have 18 deaths in 93 cases, a rate of 19·35 per cent.

I here give the weekly number of Notifications from January 2nd to December 25th.

WEEKLY NOTIFICATIONS FOR 1909.

January	2nd	.....	2	July	3rd	.....	1
"	9th	.....	2	"	31st	.....	1
"	16th	.....	4	August	7th	.....	1
"	23rd	.....	2	"	28th	.....	2
"	30th	.....	1	September	4th	.....	6
February	20th	.....	2	"	11th	.....	4
March	6th	.....	1	"	18th	.....	3
"	13th	.....	5	"	25th	.....	2
"	27th	.....	2	October	2nd	.....	4
April	3rd	.....	1	"	9th	.....	1
"	17th	.....	2	"	16th	.....	1
"	24th	.....	3	"	23rd	.....	3
May	1st	.....	1	"	30th	.....	2
"	8th	.....	4	November	6th	.....	3
"	15th	.....	1	"	13th	.....	3
"	22nd	.....	4	"	20th	.....	1
"	29th	.....	2	"	27th	.....	4
June	19th	.....	4	December	4th	.....	3
				"	11th	.....	2
				"	18th	.....	3

ENTERIC FEVER.

1909	Notification.		Deaths.	
	1909.	1908.	1909.	1908.
January	11	7	4	2
February	2	5	1	—
March	8	5	—	2
April	7	5	2	2
May	11	5	1	1
June	5	2	—	1
July	1	6	—	2
August	3	9	1	3
September	19	8	2	2
October	7	21	2	3
November	12	12	1	3
December	7	18	4	5
Total	93	103	18	26

INCIDENCE OF ENTERIC FEVER FOR FOURTEEN YEARS.

Year.	Notified Cases.	Deaths from Enteric.	Enteric Fever Rate per 1,000.
1896	101	14	·23
1897	63	10	·16
1898	92	17	·27
1899	174	25	·40
1900	104	19	·29
1901	71	12	·19
1902	76	14	·22
1903	51	11	·17
1904	56	16	·24
1905	133	36	·40
1906	138	27	·30
1907	107	22	·24
1908	103	26	·28
1909	93	18	·19

The age incidence shows the greatest number of cases have occurred in persons over 30 years, and the next larger in cases from 5—9.

AGE INCIDENCE.
YEARS.

1—4	5—9	10—14	15—19	20—24	25—29	Over 30
4	21	19	14	8	2	25

Total Cases, 93.

Houses in which cases have occurred with :—

Privy Midden.	Pails.	Waste Water Closets.	Water Closets.	Water and Waste Water Closet.	Water and Pail Closet.
19	53	3	15	2	1

Number of	privy middens in Wigan	...	...	6
"	"	Pemberton	...	1735
"	ashpits	"	...	88
"	cesspools	"	...	8
"	"	in Wigan	...	2
"	ashpits	"	...	44

STREET LIST OF DEATHS FROM ENTERIC FEVER.

<i>Wigan.</i>		<i>Pemberton.</i>	
Birkett Bank.....	1	Albert Street	1
Byrom Street	2	Scot Lane	1
Darlington Street East ..	1	Wilshaw Street	1
Dicconson Street	1		
Field Street	1		
Great George Street	1		
Hilton Street	1		
Holland Street	1		
Mint Street	1		
Northumberland Street ..	1		
Oxford Street	1		
Powell Street.....	1		
Sharp Street	1		
Woodhouse Lane	1		
	<hr/>		<hr/>
	15		3
Estimated Population for Year ending 1909, 68,858		Estimated Population for Year ending 1909, 24,710	

ENTERIC FEVER.

Cases in Houses with Insanitary Conditions and Surroundings	10
Cases in Houses with other Defects	21
Cases in Houses where no Defects were found	59
Cases in Public Institutions	3
	<hr/>
	93
	<hr/>

LIST OF STREETS IN WIGAN WHERE CASES OF ENTERIC FEVER HAVE
OCCURRED.

	1909	1908		1909	1908
Birkett Bank.....	1	2	Hilton Street	5	—
Bridge Street.....	1	—	Ingram Street	1	—
Brook Street	1	—	Lime Street	1	1
Byrom Street	4	—	Moore's Buildings	1	—
Cambridge Street	2	—	Moorfield Street	1	—
Canal Street	1	—	Northumberland Street ..	1	—
Clarrington Grove	1	—	Oxford Street.....	3	1
Clayton Street	2	—	Peet Street	1	—
Dalington Street East ..	3	—	Pitt Street	2	—
Delph Street	1	—	Ratcliffe Street	1	—
Dicconson Street	1	—	Rodney Street	1	—
Douglas Street East	2	—	Sanatorium	1	—
Driving Lane	2	—	Schofield Lane	2	1
Field Street	1	—	Sharp Street	1	—
Gilroy Street	1	2	Stanley Street	1	—
Gidlow Lane	3	3	Swann Street.....	2	—
Grayson's Yard.....	1	—	Turner Street	1	—
Great George Street	2	2	Withnall Street	1	1
Hardybutts'	3	2	Whelley	1	—
Hey Street	1	—	Wood's Yard, James St. .	1	—
Hodges Street	1	—	Woodhouse Lane	2	3
Holland Street	1	—	Workhouse	2	—
Holt Street	4	1			

LIST OF STREETS IN PEMBERTON WHERE CASES OF ENTERIC FEVER HAVE
OCCURRED.

	1909	1908		1909	1908
Albert Street	1	—	Poolstock Lane	9	2
Argyle Street.....	1	—	Regent Street	2	3
Carlton Street	1	—	Scot Lane	1	—
Enfield Street	1	1	Soho Street	2	2
Little Lane	1	1	Warrington Road	1	5

REPORT ON ENTERIC FEVER CASES, 1909.

1. Notified January 4th, 1909, J. T. K., male, aged 38 years, 51, Hey Street. Case commenced December 21st, 1908. Removed to Sanatorium January 4th, 1909. 3 adults and 2 children occupy 2 living and 2 sleeping rooms. Patient is a collier at Douglas Bank Colliery. Probably contracted the disease at work, other colliers having suffered from this complaint. 2 children attend St. Thomas's School, Clayton Street. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Atherton's.

2. Notified January 4th, 1909, M. P., female, aged 34 years, 42, Great George Street. Case commenced December 29th, 1908. Removed to Sanatorium January 4th, 1909. 3 adults and 2 children occupy shop, 1 living and two sleeping rooms. Patient keeps a chip potato shop, and may have contracted the disease from 22, Great George Street, where a case occurred. 1 child attends St. Thomas's School, Clayton Street. Surroundings, yard part flagged, drains trapped, pail closet. Milk purchased from Winstanley's.

3. Notified January 4th, 1909, H. K., male, 16 years, 47, Holt Street. Case commenced December 16th, 1908. Isolated at home. 6 adults and 2 children occupy 2 living and 3 sleeping rooms. Patient is a labourer at Douglas Bank Colliery. Probably contracted disease at work. 1 child attends Sacred Heart School. Surroundings, yard flagged, drains trapped, water-closet. Milk purchased from Co-operative Society.

4. Notified January 5th, 1909, J. McC., male, aged 33 years, 116, Darlington Street East. Case commenced December 28th, 1908. Removed to Sanatorium January 5th, 1909. 4 adults occupy shop, workshop, 1 living, and 2 sleeping rooms. Patient is a boot and shoe repairer. Surroundings, yard flagged, drains trapped, pail closet, defective bath waste pipe. Milk purchased from O'Donahue.

5. Notified January 11th, 1909, J. K., male, aged 20 years, 47, Holt Street. Case commenced December 25th, 1908. Isolated at home. Second case. First case No. 3. Patient is a labourer at Douglas Bank Colliery. Probably contracted disease from his brother, case 3.

6. Notified January 12th, 1909, T. K., male, aged 14 years, 47, Holt Street. Case commenced December 31st, 1908. Removed to Sanatorium January 12th, 1909. Third case. First case No. 3. Second case No. 5. Patient is a labourer at Douglas Bank Colliery on surface. Probably contracted disease from his brother, case 3.

7. Notified January 12th, 1909, J. K., male, aged 23 years, 47, Holt Street. Case commenced December 31st, 1908. Removed to Sanatorium January 12th, 1909. Fourth case. First case No. 3. Second case No. 5. Third case No. 6. Patient is a labourer at Douglas Bank Colliery. Probably contracted the disease from his brother, case 3.

8. Notified January 16th, 1909, J. R., male, aged 9 years, 7, Hardybutts. Case commenced January 5th, 1909, isolated at home. 8 adults and 1 child occupy 2 living and 3 sleeping rooms. Patient did not attend school owing to being deficient in mental faculties. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Hickey's.

9. Notified January 18th, 1909, R. L., male, aged 7 years, 67, Lime Street. Case commenced January 2nd, 1909, too ill for removal. 4 adults and 3 children occupy 1 living room and 2 sleeping rooms. Patient attends St. Mary's School, may have contracted disease from 58, Lime Street, where a case occurred. Surroundings, yard unpaved, drains trapped, pail closet. Milk purchased from Byers and Blackledge's.

10. Notified January 20th, 1909, W. K., male, aged 12 years, 42, Albert Street, Pemberton. Case commenced January 8th, 1909, case dead when visited. 2 adults and 4 children occupy 2 living and 2 sleeping rooms. Patient attends St. Mark's School, also 2 other children.

Surroundings, yard part bricked, drains trapped, privy midden. Milk purchased from Waring's.

11. Notified January 28th, 1909, J. R., male, aged 4 years, 17, Sharp Street. Case commenced January 14th, 1909, isolated at home. 4 adults and 4 children occupy 2 living and 3 sleeping rooms, child not of school age. Surroundings, yard tiled, drains trapped, waste water closet. Milk purchased from Waring's.

12. Notified February 16th, 1909, K. Mc.G., female, aged 7 years, 81, Gidlow Lane. Case commenced February 5th, 1909. Removed to Sanatorium February 16th, 1909. 2 adults and 4 children occupy 2 living and 3 sleeping rooms. Patient attends Sacred Heart School, another child Grammar School. Surroundings, yard flagged, drains trapped, waste water closet. Milk purchased from Schofield's.

13. Notified February 17th, 1909, S. M., male, aged 19 years, 14, Gilroy Street. Case commenced January 24th, 1909. Isolated at home. 4 adults and 1 child occupy 2 living and 3 sleeping rooms. Patient is a collier at Pearson & Knowles Collieries, sickened at 56, Schofield Lane, which has been condemned as insanitary property, only been residing at 14, Gilroy Street 2 weeks. 1 child attends St. Catharine's School. Surroundings, yard flagged and paved, drains trapped, waste water closet. Milk purchased from Green's.

14. Notified March 3rd, 1909, W. A., male, aged 12 years, 30, Oxford Street. Case commenced February 19th, 1909. Removed to Sanatorium March 3rd, 1909. 2 adults and 6 children occupy 2 living and 2 sleeping rooms. Patient attends St. George's School, also 3 other children. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Thomas.

15. Notified March 8th, 1909, J. M., male, aged 27 years, 6, Oxford Street. Case commenced February 26th, 1909. Removed to Sanatorium March 8th, 1909. 5 adults and 6 children occupy 2 living and 3 sleeping rooms. Patient is a collier at Douglas Bank Colliery. Cases Nos. 1, 3, 5, 6, 7 all worked at this colliery. 4

children attend St. Mary's School. Surroundings, yard tiled, drains trapped, pail closet. Milk used, condensed.

16. Notified March 8th, 1909, M. J. H., female, aged 60 years, 59, Hodges Street. Case commenced February 22nd, 1909. Isolated at home. 4 adults occupy 2 living and 3 sleeping rooms. Patient attends to domestic duties. One adult teacher at Spring View School. Surroundings, yard flagged, drains trapped, water closet. Milk purchased from Haddock and Gill's.

17. Notified March 11th, 1909, E. H., female, aged 36 years, 42, Clayton Street. Case commenced February 19th, 1909. Removed to Sanatorium March 11th, 1909. 2 adults and 4 children occupy 2 living and 2 sleeping rooms. Patient attends to domestic duties. 3 children attend St. Joseph's School. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Letman's.

18. Notified March 12th, 1909, M. McC., female, aged 33 years, Sanatorium. Case commenced February 23rd, 1909. Nurse at Sanatorium, probably contracted disease from patients she was nursing.

19. Notified March 12th, 1909, E. A. B., female, aged 11 years, 7a, Driving Lane. Case commenced February 26th, 1909. Removed to Sanatorium March 12th, 1909. 2 adults and 5 children occupy 1 living and 1 sleeping room. Patient attends Presbyterian School, also 1 other child. Surroundings, yard flagged, drains trapped, pail closet adjoins pantry. Milk purchased from O'Donahue.

20. Notified March 23rd, 1909, T. B., male, aged 6 years, 29, Swann Street. Case commenced March 3rd, 1909. Removed to Sanatorium March 23rd, 1909. 3 adults and 5 children occupy 2 living and 2 sleeping rooms. Patient attends St. Thomas's School, Clayton Street, also 3 other children. Surroundings, yard unpaved, drains trapped, pail closet. Milk purchased from Jones.

21. Notified March 25, 1909, R. M., male, aged 39 years, 6, Oxford Street. Case commenced March 17th,

1909. Removed to Sanatorium March 25th, 1909. Second case. First case No. 15. Patient works at Douglas Bank Colliery, also cases 1, 3, 5, 6, 7, and 15.

22. Notified April 2nd, 1909, A. M., female, aged 17 years, 36, Turner Street. Case commenced March 20th, 1909. Removed to Sanatorium April 3rd, 1909. 6 adults and 5 children occupy 2 living and 2 sleeping rooms. Patient is employed at Eckersley's Mill, in spinning room No. 2 Western Mill, and may have contracted the disease from cases which occurred in Oxford Street. 3 children attend St. George's School. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Thompson's.

23. Notified April 13th, 1909, H. M., female, aged $5\frac{1}{2}$ years, 29, Swann Street. Case commenced April 5th, 1909. Removed to Sanatorium April 13th, 1909. Second case. First case No. 20. Drains choked at rear of 17, Swann Street.

24. Notified April 17th, 1909, J. H., male, aged 18 years, 46, Canal Street. Case commenced April 5th, 1909. Removed to Sanatorium April 17th, 1909. 7 adults and 1 child occupy 2 living and 3 sleeping rooms. Patient is a labourer at Blundell's Colliery, below surface. This house is immediately at rear of 47 and 49, Holt Street, where cases of Enteric Fever have occurred (cases 3, 5, 6, 7). 1 child attends St. Andrew's School. Surroundings, yard flagged, drains choked, water closet. Milk purchased from McKay's.

25. Notified April 19th, 1909, W. B., male, aged 4 years, 7a, Driving Lane. Case commenced April 12th, 1909. Removed to Sanatorium April 19th, 1909. Second case. First case No. 19.

26. Notified April 22nd, 1909, J. H. P., male, aged 7 years, 184, Woodhouse Lane. Case commenced April 15th, 1909. Removed to Sanatorium April 22nd, 1909. 4 adults and 7 children occupy 2 living and 2 sleeping rooms (2 families, overcrowding). Patient attends St. Thomas School, Caroline Street, also 3 other

children. Surroundings, yard bricked, drains trapped, pail closet, sink waste pipe defective. Milk purchased from Gerrard's.

27. Notified April 24th, 1909, J. D., male, aged 19 years, 51, Stanley Street. Case commenced April 13th, 1909. Removed to Sanatorium April 24th, 1909. 5 adults and 1 child occupy 2 living and 3 sleeping rooms. Patient has not followed any employment for over 12 months. 1 child attends St. Catharine's School. Surroundings, yard flagged, drains trapped, pail closet, passage at rear unpaved. Milk purchased from Barton's.

28. Notified April 30th, 1909, L. D., female, aged 4 years, 39, Poolstock Lane, Pemberton. Case commenced April 20th, 1909. Removed to Sanatorium April 30th, 1909. 3 adults and 6 children occupy 2 living and 3 sleeping rooms. Patient's mother died of Enteric Fever in October, 1908. 3 children attend St. James's School, Worsley Mesnes. Surroundings, yard flagged (defective), drains trapped, privy midden. Milk used, condensed.

29. Notified May 3rd, 1909, J. G., male, aged 7 years, 115, Woodhouse Lane. Case commenced April 25th, 1909. Removed to Sanatorium May 3rd, 1909. 3 adults and 4 children occupy 2 living and 3 sleeping rooms. Patient attends St. Andrew's School, also 1 other child. Surroundings, yard flagged and bricked, drains trapped, pail closet, slopstone pipe requires lengthening, gulley requires bricking round and cementing. Milk purchased from Ashton's.

30. Notified May 6th, 1909, E. B., female, aged $6\frac{1}{2}$ years, 416, Scot Lane, Pemberton. Case commenced May 2nd, 1909. Removed to Sanatorium May 6th, 1909. 7 adults and 3 children occupy 2 living and 2 sleeping rooms. Patient attends Marsh Green School, also 2 other children. Surroundings, yard flagged and bricked, drains trapped, privy midden. Milk purchased from Southworth's.

31. Notified May 7th, 1909, W. G., male, aged $9\frac{1}{2}$ years, 8, Douglas Street East. Case commenced May 3rd, 1909. Removed to Sanatorium May 8th, 1909. 2 adults

and 8 children occupy 2 living and 2 sleeping rooms. Patient attends New Jerusalem School, also 1 other child. Surroundings, yard flagged, drains choked, pail closet, gulley requires cementing round and walls plastering. Milk purchased at Barton's.

32. Notified May 8th, 1909, S. G., female, aged $6\frac{1}{2}$ years, 8, Douglas Street East. Case commenced May 6th, 1909. Removed to Sanatorium May 8th, 1909. Second case. First case 31.

33. Notified May 14th, 1909, A. M., female, aged 17 years, 126, Poolstock Lane, Pemberton. Case commenced May 3rd, 1909. Removed to Sanatorium May 14th, 1909. 4 adults and 5 children occupy 3 living and 3 sleeping rooms. Patient works in the Mule Room at Brown and Nephews, Worsley Mesnes Mill. 2 children attend St. James's School, Worsley Mesnes. Surroundings, yard part flagged, drains trapped, privy midden. Milk purchased from Gore's. May have been contracted from case 28.

34. Notified May 17th, 1909, T. M., male, aged 15 years, 126, Poolstock Lane, Pemberton. Case commenced May 4th, 1909. Removed to Sanatorium May 17th, 1909. Second case. First case No. 33. Patient works at Worsley Mesnes Colliery.

35. Notified May 20th, 1909, T. P., male, aged 45 years, 65, Clayton Street. Case commenced May 1st, 1909. Removed to Sanatorium May 20th, 1909. 4 adults and 2 children occupy 2 living and 2 sleeping rooms. Patient is a builder's labourer for Mr. Johnson, Caroline Street. 1 child attends St. Thomas's School, Caroline Street. Surroundings, yard part flagged, drains trapped, pail closet. Milk purchased from Letman.

36. Notified May 22nd, 1909, S. E. S., female, aged 5 years, 98, Poolstock Lane, Pemberton. Case commenced May 9th, 1909. Removed to Sanatorium May 24th, 1909. 6 adults and 7 children occupy 2 living and 3 sleeping rooms. Patient and 4 other children attend St. James's School, Worsley Mesnes. Surroundings, yard flagged, drains trapped, privy midden. Milk purchased from Hodgkinson. Probably contracted from case 37.

37. Notified May 22nd, 1909, A. McK., male, aged 10 years, 8, Brook Street. Case commenced May 9th, 1909. Removed to Sanatorium May 22nd, 1909. 2 adults and 5 children occupy 1 living and 2 sleeping rooms. Patient and two other children attend St. James's School, Poolstock. Surroundings, no proper yard, drains trapped, pail closet, no back door. Milk purchased from Jones, Pool Street.

38. Notified May 25th, 1909, M. H., female, aged 10 years, 10, Moore's Buildings, Frog Lane. Case commenced May 16th, 1909. Removed to Sanatorium May 25th, 1909. 1 adult and 5 children occupy 1 living and 1 sleeping room. Patient attends St. Thomas's School, Clayton Street, also 2 other children. Surroundings, insanitary property, condemned, back to back house, yard paved, drains trapped, pail closet. No milk used.

39. Notified May 28th, 1909, S. J., male, aged 40 years, Workhouse. Case isolated at Union Workhouse.

40. Notified June 15th, 1909, M. B., male, aged 33 years, 64, Soho Street, Pemberton. Case commenced June 6th, 1909. Removed to Sanatorium June 15th, 1909. 2 adults and 3 children occupy 2 living and 2 sleeping rooms. Patient is a collier at Douglas Bank Colliery, but has not followed his employment for five weeks owing to an accident. 1 child attends St. Mark's School. Surroundings, yard paved, drains trapped, privy midden. The sewers have been recently relaid in this street. Milk used, condensed.

41. Notified June 18th, 1909, W. D., male, aged 30 years, 5, Woods' Yard, James Street. Case commenced June 15th, 1909. Not fit for removal. 2 adults and 1 child occupy 1 living and 1 sleeping room. Patient is a collier at Pearson and Knowles' No. 1 Pit, but had not followed his employment for several weeks owing to suffering from Haemorrhoids. Worked in a very wet place. Surroundings, back to back house, yard flagged, drains trapped, pail closet. Milk used, condensed.

42. Notified June 19th, 1909, H. S., male, aged 13 years, 98, Worsley Mesnes. Case commenced June 12th,

1909. Removed to Sanatorium June 19th, 1909. Second case. First case No. 36. Patient attends St. James's School, Worsley Mesnes.

43. Notified June 19th, 1909, J. S., male, aged 16 years, 98, Worsley Mesnes. Case commenced June 14th, 1909. Removed to Sanatorium June 19th, 1909. Third case. First case No. 36. Second case No. 42. Patient works at Park Lane Colliery.

44. Notified June 28th, 1909, J. McM., male, aged 33 years, Union Workhouse. Patient had been in Workhouse unwell for five weeks. Removed to Sanatorium June 28th, 1909.

45. Notified July 31st, 1909, O. J., male, aged 23 years, 17, Ratcliffe Street. Case commenced July 24th, 1909. Removed to Sanatorium August 3rd, 1909. 6 adults and 1 child occupy 2 living and 3 sleeping rooms. Patient is a grocer's assistant for O. and G. Rushton, Ltd., and worked at their Blackrod branch shop. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Simpson's.

46. Notified August 4th, 1909, A. L. G., female, aged 42 years, 245, Gidlow Lane. Case commenced July 20th, 1909. Isolated at home. 3 adults and 1 child occupy 3 living and 4 sleeping rooms. Patient attends to domestic duties. 1 child attends Grammar School. Surroundings, yard flagged, drains trapped, water closet inside house, and waste water closet outside. Milk purchased from Gill's.

47. Notified August 26th, 1919, M. C., female, aged 15 years, 8a, Hardybutts. Case commenced August 21st, 1909. Removed to Sanatorium August 27th, 1909. 2 adults and 4 children occupy 2 living and 3 sleeping rooms. Patient is a machinist in the measure department at Coop and Co., Tailors, Dorning Street. 1 child attends the Warrington Lane Council School. 1 sister is a teacher at Crooke. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Grimshaw's.

48. Notified August 26th, 1909, J. W., male, aged 17 years, 135, Great George Street. Case commenced

August 19th, 1909. Removed to Sanatorium, August 27th, 1909. 6 Adults and 1 child occupy 2 living and 3 sleeping rooms. Patient is a fitter's labourer at the L. and Y. Railway Co.'s Engine Shed. 1 child attends St. Joseph's School. Surroundings, yard flagged and bricked, drains defective, pail closet. Milk purchased from Fairhurst's

49. Notified September 1st, 1909, A. M., female, aged 24 years, 58, Dicconson Street. Case commenced August 18th, 1909. Removed to Sanatorium September 1st, 1909. 5 adults occupy 3 living and 3 sleeping rooms. Patient assists with domestic duties at home. Surroundings, yard flagged, drains trapped, water closet inside house, pail closet outside. Milk purchased from Jones.

50. Notified September 1st, 1909, E. M., female, aged 15 years, 49, Birkett Bank. Case commenced August 13th, 1909, Case dead when visited. 7 adults and 1 child occupy 2 living and 3 sleeping rooms. Patient assisted with domestic duties at home. Surroundings, yard flagged and paved, drains trapped, pail closet. Milk purchased from Warth and Co.

51. Notified September 4th, 1909, A. M., female, aged 32 years, 28, Carlton Street. Pemberton. Case commenced August 25th, 1909. Removed to Sanatorium September 4th, 1909. 2 adults and 5 children occupy 2 living and 2 sleeping rooms. Patient attends to domestic duties at home. 3 children attend Worsley Mesnes School. Surroundings, yard unpaved, no street made, drains trapped, privy midden. Milk purchased from Hodgkinson.

52. Notified September 4th, 1909, M. B., female, aged 13 years, 138, Worsley Mesnes, Pemberton, Case commenced August 22nd, 1909. Isolated at home. 6 adults and 2 children occupy 2 living and 3 sleeping rooms. Patient is a winder at Brown's Cotton Mill. 1 child attends St. James's Worsley Mesnes School. Surroundings, yard part flagged, drains trapped, privy midden, Milk purchased from Hodgkinson.

53. Notified September 4th, 1909, E. B., female, aged 19 years, 138, Worsley Mesnes. Case commenced August 24th, 1909. Isolated at home. Second case. First case No. 52. Patient is a weaver at Eckersley's Mill.

54. Notified September 4th, 1909, T. B., male, aged 12 years, 138, Worsley Mesnes. Case commenced August 29th, 1909. Isolated at home. Third case. First case No. 52. Second case No. 53. Patient attends St. James's School, Worsley Mesnes.

55. Notified September 8th, 1909, A. J. W., female, aged 30 years, 34, Soho Street, Pemberton. Case commenced August 31st, 1909. Isolated at home. 3 adults occupy 2 living and 2 sleeping rooms. Patient is a spinner at May Mill, Pemberton, Surroundings, yard paved, drains trapped, privy midden. Milk purchased from Hurst.

56. Notified September 8th, 1909., P. B., male, aged 19 years, 438, Warrington Road, Pemberton. Case commenced August 18th, 1909. Isolated at home. 5 adults and 1 child occupy 2 living and 3 sleeping rooms. Patient is a moulder at Worsley Mesnes Foundry. Surroundings, yard flagged, drains trapped, privy midden. Milk purchased from Glover, Phythian, and Ball.

57. Notified September 10th, 1909, S. W., female, aged 22 years, 135, Darlington Street East. Case commenced August 30th, 1909. Removed to Sanatorium September 10th, 1909. 5 adults and 1 child occupy shop, 2 living and 3 sleeping rooms. Patient is employed at Fletcher's, Draper, Scholes, in workroom. 1 child attends New Jerusalem School. Surroundings, yard flagged and bricked, drains trapped, pail closet. Milk purchased from Thomas and T. H. Warth and Co.

58. Notified September 10th, 1909, C. O. D., female, aged 12 years, 32, Enfield Street, Pemberton. Case commenced August 27th, 1909. Isolated at home. 5 adults and 2 children occupy 2 living and 2 sleeping rooms. Patient attends St. Cuthbert's School. Surroundings, yard part flagged, drains trapped, privy midden. Milk purchased from Alker.

59. Notified September 13th, 1909, W. O. J., male, aged 22 years, 274, Whelley. Case commenced August 30th, 1909. Isolated at home. 4 adults occupy 2 living and 2 sleeping rooms. Patient is a stoker on surface at Crawford Colliery. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Miller and Makinson.

60. Notified September 14th, 1909, J. C., female, aged 43 years, 8a, Hardybutts. Case commenced September 5th, 1909. Removed to Sanatorium September 14th, 1909. Second case. First case No 47. Patient had nursed previous case.

61. Notified September 16th, 1909, M. H., male, aged 19 years, 17, Rodney Street. Case commenced September 6th 1909. Removed to Sanatorium September 16th, 1909. 8 adults occupy 4 living and 6 sleeping rooms. Patient has not followed any employment for 2 years. Surroundings, yard paved, drains defective, water closet inside, waste water closet outside. Milk purchased from Marshall and Barton.

62. Notified September 20th, 1909, M. H., female, aged 7 years, 10, Withnall Street. Case commenced September 12th, 1909. Removed to Sanatorium September 20th, 1909. 5 adults and 5 children occupy 2 living and 3 sleeping rooms. Patient attends St. John's School, also 2 other children. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Lonsdale.

63. Notified September 20th, 1909, H. H., male, aged 34 years, 47, Little Lane, Pemberton. Case commenced August 24th, 1909. Isolated at home. 5 adults and 1 child occupy 2 living and 2 sleeping rooms. Patient is a collier, and works at Bispham Hall Colliery, in a very damp mine. Surroundings, yard part paved, drains trapped, privy midden. Milk purchased from Alker.

64. Notified September 27th, 1909, J. F., male, aged 26 years, 5, Peet Street. Case commenced September 20th, 1909. Removed to Sanatorium September 27th, 1909. 2 adults occupy 2 living and 2 sleeping rooms. Patient is a collier and works at Cross, Tetley and Co.,

Bamfurlong. Surroundings, yard flagged (defective), drains trapped, pail closet, defective kitchen flagging. Milk purchased from Culshaw and Jones.

65. Notified September 28th, 1909, P. M., male, aged 38 years, 5, Field Street. Case commenced September 16th, 1909. Removed to Sanatorium September 28th, 1909. 3 adults and 3 children occupy 2 living and 3 sleeping rooms. Patient is a labourer at the Wigan Rolling Mills, 2 children attend National School. Surroundings, yard flagged, drains trapped, pail closet. Milk used, condensed.

66. Notified September 28th, 1909, J. A., male, aged 22 years, 38, Schofield Lane. Case commenced September 5th, 1909. Removed to Sanatorium September 28th, 1909. 3 adults occupy 1 living and 2 sleeping rooms. Patient is a collier at Ackers, Whitley, and Co's Plank Lane Colliery. Surroundings, yard flagged (defective), drains trapped, pail closet, insufficiently ventilated. Milk purchased from Winnard.

67. Notified September 25th, 1909, M. A. L., female, aged 32 years, 50, Argyle Street, Pemberton. Case commenced September 15th, 1909. Removed to Sanatorium September 25th, 1909. 4 adults occupy 2 living and 3 sleeping rooms. Patient is a teacher at St. Marie's School, Standish. Surroundings, yard flagged, drains trapped, water closet. Milk purchased from Hill and Castelli.

68. Notified October 4th, 1909, M. T., female, aged 6 years, 33, Cambridge Street. Case commenced September 21st, 1909. Removed to Sanatorium October 4th, 1909. 3 adults and 3 children occupy 2 living and 2 sleeping rooms. Patient attends St. Patrick's, also 1 other child. Surroundings, yard flagged, drains trapped, pail closet, defective wall round sink waste pipe. Milk purchased from Plover's.

69. Notified October 13th 1909, J. T., male, aged 10 years, 33, Cambridge Street. Case commenced September 17th, 1909. Removed to Sanatorium October 13th, 1909. Although notified later this was the 1st case; other case No. 68.

70. Notified October 19th, 1909, E. B., male, aged 7 years, 44, Holland Street. Case commenced October 5th, 1909. Removed to Sanatorium October 19th, 1909. 3 adults and 3 children occupy 2 living and 2 sleeping rooms. Patient attends St. George's School, also 2 other children. Surroundings, yard flagged, drains trapped, water closet. Milk purchased from Haddock.

71. Notified October 20th, 1909, D. L., male, aged 13 years, Gidlow House, Gidlow Lane. Case commenced October 11th, 1909, isolated at home. 8 adults and 4 children occupy large house, several bedrooms. Patient attends Wesleyan School, also 2 other children. 1 girl attends Girls' High School. Surroundings, yard flagged, drains defective, water closet inside, waste water closet outside. Milk purchased from Gill, Dunn, and Strong's.

72. Notified October 22nd, 1909, I. C. C., female, aged 13 years, 71, Delph Street. Case commenced October 8th, 1909. Isolated at home. 3 adults and 3 children occupy 2 living and 3 sleeping rooms. Patient attends Wesleyan School, also 2 other children. Surroundings, yard flagged (defective), drains trapped, sink waste does not discharge over gully, water closet. Milk purchased from Hodge's.

73. Notified October 27th, 1909, A. B., female, aged 9 years, 9, Regent Street, Pemberton. Case commenced October 12th, 1909. Removed to Sanatorium October 27th, 1909. 2 adults and 6 children occupy 2 living and 2 sleeping rooms. Patient attends St. Cuthbert's, also 3 other children. Surroundings, yard paved, drains trapped, privy midden. No milk used.

74. Notified October 27th, 1909, M. E. B., female, aged 5 years, 9, Regent Street, Pemberton. Case commenced October 17th, 1909. Removed to Sanatorium October 27th, 1909. Second case. First case No. 73. Patient attends St. Cuthbert's School.

75. Notified November 3rd, 1909, J. T. F., male, aged 44 years, 19, Grayson's Yard. Case commenced October 25th, 1909. Too ill for removal. 3 adults and 3 children

occupy 2 living and 3 sleeping rooms. Patient is a carter for Smith's, Fellmongers, Water Street. 2 children attend St. Michael's School. Surroundings, yard paved, drains trapped, pail closet, insanitary property, adjoins stable. Milk purchased from Barnes.

76. Notified November 6th, 1909, W. H., male, aged 11¹⁰/₁₂ years, 19, Pitt Street. Case commenced October 13th, 1909. Removed to Sanatorium November 9th, 1909. 2 adults and 5 children occupy 1 living and 2 sleeping rooms. Patient attends St. Thomas's School, Clayton Street, also 3 other children. Surroundings, back to back house, no proper yard, drains trapped, pail closet. Milk purchased from Winstanley's.

77. Notified November 6th, 1909, R. H. B., male, aged 8 years, 11, Clarington Grove. Case commenced November 2nd, 1909. Removed to Sanatorium November 6th, 1909. 2 adults and 4 children occupy 2 living and 3 sleeping rooms. Patient attends St. Catharine's School, also 2 other children. Surroundings, yard part flagged, drains trapped, water closet. Milk purchased from Hilton's.

78. Notified November 9th, 1909, E. S., male, aged 11 years, 98, Schofield Lane. Case commenced November 2nd, 1909. Removed to Sanatorium November 9th, 1909. 3 adults and 3 children occupy 2 living and 2 sleeping rooms. Patient attends St. Catharine's School. Surroundings, yard paved, drains trapped, pail closet. Milk purchased from Haddock's.

79. Notified November 9th, 1909, J. H., male, aged 9 years, 19, Pitt Street. Case commenced November 6th, 1909. Removed to Sanatorium November 9th, 1909. 2nd case, 1st case No. 76.

80. Notified November 10th, 1909, J. W., male, aged 22 years, 37, Ingram Street. Case commenced October 27th, 1909. Removed to Sanatorium November 10th, 1909. 4 adults and 1 child occupy 2 living and 3 sleeping rooms. Patient is a labourer at Douglas Bank Colliery, below surface. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Gerrard's.

81. Notified November 16th, 1909, E. A., male, aged 10 years, 181, Darlington Street East. Case commenced November 6th, 1909. Too ill for removal. 3 adults and 4 children occupy 2 living and 3 sleeping rooms. Patient attends New Jerusalem School, also 1 other child. May have contracted disease from case 77, who was a playmate. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Callow Park, and condensed milk used.

82. Notified November 23rd, 1909, J. P., female, aged 40 years, 23, Hilton Street. Case commenced October 18th, 1909. Isolated at home. 5 adults and 6 children occupy 2 living and 3 sleeping rooms. Patient engaged in domestic duties. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Thomas. This case was not notified until convalescent; no precautions had been taken, and 4 other cases afterwards sickened.

83. Notified November 23rd, 1909, F. P., female, aged 6 years, 23, Hilton Street. Case commenced November 16th, 1909. Isolated at home. Removed to Sanatorium December 4th. 2nd case, 1st case No. 82. Patient attends Wesleyan School.

84. Notified November 23rd, 1909, N. P., female, aged 3 years, 23 Hilton Street. Case commenced November 21st, 1909. Isolated at home. 3rd case, 1st case No. 82, 2nd case No. 83.

85. Notified November 25th, 1909, G. H., female, aged 14 years, 9, Moorfield Street. Case commenced November 12th, 1909. Removed to Sanatorium November 26th, 1909. 3 adults and 7 children occupy 2 living and 2 sleeping rooms. Patient works in cardroom at Eckersley's Mill. 3 children attend St. John's School. Surroundings, yard part flagged, drains trapped, pail closet. Milk purchased from Connor's.

86. Notified November 29th, 1909, T. D., male, aged 33 years, 7, Bridge Street. Case commenced November 10th, 1909. Removed to Sanatorium November 29th, 1909. 4 adults and 2 children occupy 2 living and 2

sleeping rooms. Patient is a collier at Pearson and Knowles's Daisy Pit. Surroundings, yard paved, drains trapped, pail closet. Milk purchased from Letman's.

87. Notified December 4th, 1909, A. P., male, aged 10 years, 23, Hilton Street. Case commenced November 30th, 1909. Removed to Sanatorium December 4th, 1909. 4th case, 1st case No. 82, 2nd case No. 83, 3rd case No. 84.

88. Notified December 4th, 1909, E. P., male, aged 7 years, 23, Hilton Street. Case commenced December 1st, 1909. Removed to Sanatorium December 4th, 1909. 5th case, 1st case No. 82, 2nd case No. 83, 3rd case No. 84, 4th case No. 87.

89. Notified December 6th, 1909, L. J. P., female, aged 30 years, 30, Byrom Street. Case commenced November 29th, 1909. Removed to Sanatorium December 6th, 1909. 2 adults and 4 children occupy 1 living and 2 sleeping rooms. Patient attends to domestic duties. Surroundings, yard flagged, drains trapped, pail closet. Milk purchased from Co-operative Society.

90. Notified December 10th, 1909, M. A. M., female, aged $8\frac{1}{2}$ years, 64, Byrom Street. Case commenced November 26th, 1909. Removed to Sanatorium December 10th, 1909. 2 adults and 7 children occupy 1 living and 2 sleeping rooms. Patient attends St. Joseph's School, also 3 other children. Surroundings, yard flagged, drains defective, pail closet. Milk purchased from Rigby's.

91. Notified December 13th, 1909, J. W. M., male, aged $12\frac{1}{2}$ years, 64, Byrom Street. Case commenced December 9th, 1909. Removed to Sanatorium December 13th, 1909. 2nd case, 1st case No. 90.

92. Notified December 17th, 1909, W. R., male, aged 30 years, 115, Northumberland Street. Case commenced December 3rd, 1909. Removed to Sanatorium December 17th, 1909. 7 adults occupy 2 living and 3 sleeping rooms. Patient is a collier at Wigan Coal and Iron Co.,

Alexandra Pit. Surroundings, yard concreted, drains trapped, water closet. Milk purchased from Taylor's and Co-operative Society.

93. Notified December 18th, 1909, M. E. M., female, aged 31 years, 64, Byrom Street. Case commenced December 13th, 1909. Removed to Sanatorium December 18th, 1909. 3rd case, 1st case No. 90, 2nd case No. 91. Patient had nursed the two previous cases.

ENTERIC FEVER CASES, 1909.

Cases 1, 3, 5, 6, 7, 15, 21, 40, and 80, all were persons who worked at the Douglas Bank Colliery. During 1908 we had 6 cases who worked at this colliery.

Case 2 may have contracted the disease from a case which occurred at No. 22, Great George Street, and was notified on December 29th, 1908.

Case 9 may have contracted from a case which occurred at No. 58, Lime Street, and was notified on December 10th, 1908.

Case 18 was a nurse at the Sanatorium who contracted the disease from the patients she was nursing.

Case 19 was the source of case 25.

Case 20 was the source of case 23.

Case 22 probably contracted the disease from cases which occurred in Oxford Street.

Case 24 probably contracted the disease from cases which occurred in Holt Street, and were immediately at the rear of this house.

Case 28 occurred at 39, Poolstock Lane, Pemberton. A previous case occurred at this house on October 27th, 1908, and this case was probably the source of the other cases which occurred in Worsley Mesnes Nos. 33, 34, 36, 42, 43, 51, 52, 53, and 54.

Cases 31 and 32 occurred in the same house.

Cases 39 and 44 occurred at the Union Workhouse.

Cases 40 and 55 occurred in Soho Street, Pemberton, where the sewer had recently been relaid.

Case 47 was the source of case 60; and second case had nursed first case.

Case 59 worked at the Crawford Colliery, Aspull, and believed he contracted the disease in that district.

Cases 68 and 69 occurred in the same house.

Cases 73 and 74 occurred in the same house.

Cases 76 and 79 occurred in the same house.

Cases 77, 78, and 81 all probably contracted disease from the same source.

Case 82 was not notified until convalescent, and no precautions had been taken to prevent disease spreading, with the result that cases 83, 84, 87, and 88 occurred at the same house.

Case 85 may have contracted the disease from case 80.

Case 90 was the source of cases 91 and 93.

The following is a list of houses where two or more cases of Enteric Fever have occurred :—

	Cases.
47, Holt Street	4
6, Oxford Street	2
7a, Driving Lane	2
29, Swann Street	2
8, Douglas Street East	2
126, Poolstock Lane, Pemberton	2
98, Poolstock Lane, Pemberton	3
8a, Hardybutts	2
138, Poolstock Lane, Pemberton	3
33, Cambridge Street	2
9, Regent Street, Pemberton	2
19, Pitt Street	2
23, Hilton Street	5
64, Byrom Street	3

DIARRHŒA.

Number of Deaths	51	In 1908	87
Mortality of Population ..	·54	„	·94

We had a rate of ·94 in 1908, but we have this year only a rate of ·54.

AGE INCIDENCE, 1909.

Month.	Deaths.	0-1 Year.	1-5 Years.	Over 5 Yrs.
January	—	—	—	—
February	1	1	—	—
March	1	1	—	—
April	—	—	—	—
May	1	—	1	—
June	4	2	1	1
July	3	3	—	—
August	15	13	1	1
September	18	17	1	—
October	6	4	2	—
November	—	—	—	—
December	2	2	—	—
Total	51	43	6	2

It will be seen that August and September give us the greatest number of deaths, and, as in previous years, these are chiefly in children under the age of one year.

The Lady Health Visitor (Miss Alldritt) gives the following report of investigations made, and when carefully studied is interesting :—

PARTICULARS *RE* DEATHS FROM DIARRHŒA, 1909.

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Sex.	Age.	Address.	How Fed.	Milk.	Previous Deaths from Dia'rheæ	W.C. Accom	Yard.	Remarks.
M.	1 month	11, Hodges Street ..	Bottle ..	Sterilised ..	1	Waste Water Privy Pail	Flagged ..	Weak from birth.
M.	3 months	33, Queen Street (P.)	Mixed ..	Condensed ..	—	—	Flagged ..	Twin.
F.	17 months	11, Ormandy's Houses	Breast & ordinary	—	—	—	Part flagged	Six people in 2 roomed house.
F.	10 months	14, Portland Street	Breast ..	—	—	Pail separate Pail..	Flagged ..	Defective flagging round gully.
M.	5 months	8, Leader Street ..	Bottle ..	Cow's	—	W.C.	Flagged ..	Choked gully.
M.	14 months	16, Lime Street ..	Spoon ..	Cow's	1	—	Flagged ..	—
M.	62 years	Wigan Workhouse ..	—	—	—	W.C.	Flagged ..	—
F.	6 months	31, Holt Street ..	Breast ..	—	—	W.C.	Flagged ..	Weak from birth
F.	7 months	1, Bridge End ..	Bottle ..	Cow's	—	Pail..	Flagged ..	Defective flush at W.C.
M.	15 months	1, Myrtle Street ..	Bottle ..	Sterilised ..	—	W.C.	Flagged ..	Fed with bread.
M.	8 months	51, Spring Street ..	Bottle ..	Nestle's ..	—	W.C.	Concrete	—
M.	2 months	11, Church Terrace	Breast ..	—	—	W.C.	Flagged ..	—
F.	4 months	10, School Street ..	Bottle ..	Sterilised ..	6	Pail..	Flagged ..	—
M.	2 months	76, Queen Street ..	Bottle ..	Cow's	—	Pail..	Unflagged ..	Twin.
M.	3 months	1, Leeds Street ..	Bottle ..	Cow's	—	W.C.	Bricked ..	—
F.	5 months	9, Leader Street (P.)	Bottle ..	Cow's	—	W.C.	Flagged ..	Bad flush at W.C. Filthy condition.
F.	6 months	24, Tunstall Lane ..	Bottle ..	Cow's	—	Privy	Flagged ..	Delicate from birth.
F.	5 yrs. 7 mths.	11, Edith Street ..	Ordinary	—	—	Pail..	Part flagged	—
M.	14 months	26, Lime Street ..	Spoon ..	Cow's	—	Pail..	Part flagged	—

PARTICULARS *RE* DEATHS FROM DIARRHOEA—Continued.

Sex.	Age.	Address.	How Fed.	Milk.	Previous Deaths from Dia'rhœa	W.C. Accom.	Yard.	Remarks.
F.	6 months	62, John Street	Bottle	Cow's	—	Pail..	Flagged	Yard in bad condition.
M.	5 months	9, Birkett Bank Terrace	Bottle	Nestle's	—	Pail..	Flagged	Delicate from birth.
F.	5 months	58, Anderton Street	Bottle	Cow's	—	Pail..	Flagged	Drains being attended to.
F.	10 months	11, Addison Street..	Bottle	Sterilised	1	Pail..	Part paved	1 closet to 3 houses.
F.	11 months	67, Warrington Road	Bottle	Nestle's	—	Privy	Flagged	Insanitary property.
F.	4 months	2, Alfred Street (P.)	Bottle	Nestle's	1	Privy	Part flagged	Removed to Hen Street.
M.	6 months	9, Seed Street	Bottle	Sterilised	—	Pail..	Unpaved	Convulsions and Diarrhœa.
F.	11 months	2, Little Church Street (P.)	Breast	—	—	Privy	Part flagged	Fowls very near house. Yard
F.	5 months	26, Oxford Street	Bottle	Cow's	—	Pail..	Flagged	dirty.
F.	6 months	17, Higham Street	Bottle	Cow's and Horlick's	—	Pail..	Flagged	Illegitimate.
M.	5 months	23, Douglas Street (P.)	Bottle	Cow's	3	Privy	Part flagged	Single house. No through ventilation.
M.	3 weeks	1, Brindley Street (P.)	Bottle	Allenbury's Food	—	W.C.	Flagged	Weak from birth.
F.	3 months	434, Warrington Road	Bottle	Cow's	2	Privy	Part flagged	Child weaned for mother to work at mill.
F.	6 months	16, Ingram Street	Bottle	Cow's	—	Pail..	Part paved	Insanitary property.
M.	8 months	3, Swift's Square	Bottle	Neave's Food	—	Pail..	Setts	Insanitary property.
F.	17 months	27, Bottling Wood	Ordinary	—	—	Pail..	Unpaved	Insanitary property.
M.	23 months	155, Whelley	Ordinary	—	—	Pail..	Part flagged	
M.	9 months	43, Bottling Wood	Bottle	Cow's	1	Pail..	Part flagged	

PARTICULARS RE DEATHS FROM DIARRHOEA *Continued.*

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Sex	Age.	Address.	How Fed.	Milk.	Previous Deaths from Diarrhoea	W.C. Accom	Yard.	Remarks.
M.	4 months	29, Russell Street ..	—	—	—	—	—	Removed from this address.
M.	10 months	14, Jockey Terrace	Breast ..	—	—	Waste Water Pail..	Setts ..	Unascertained particulars. Mother suffering from Diarrhoea while suckling.
M.	7 months	58, Hardybutts ..	Bottle ..	Cow's	—	Pail..	Part flagged	1 closet to 4 houses. Filthy condition.
M.	11 months	10, Ironmonger Lane	Breast ..	—	—	Pail..	Flagged ..	
F.	5 months	161, Darlington Street East	Bottle ..	Condensed	—	Pail..	Flagged ..	
M.	9 months	9, Baker Street ..	Bottle ..	Condensed	—	Pail..	Flagged ..	
F.	5 months	9, Portland Street ..	Bottle ..	Condensed	—	Pail..	Concrete ..	Illegitimate.
M.	10 months	91, Lime Street ..	Bottle ..	Condensed	1	Pail..	Flagged ..	
M.	9 months	1, Swift's Square ..	Breast ..	—	—	Pail..	Setts ..	
M.	7 months	66, Cambridge Street	Breast & barley wtr.	—	—	W.C.	Flagged ..	
M.	3 months	8, Duke Street (G. G.)	Bottle ..	Condensed	3	Privy	Setts ..	Insanitary property.
M.	5 months	1a, Hartley Street (P.)	Bottle ..	Condensed	—	Privy	Part flagged	
F.	4 months	60a, School Street ..	Bottle ..	Cow's	1	Pail..	Flagged ..	Illegitimate.
M.	11 months	407, Ormskirk Road	Bottle ..	Condensed	—	Privy	Part flagged	

SUMMARY.

HOW FED.						No.
Breast	...	...	...	...	...	7
Breast and Spoon, Cow's Milk				...	...	1
Breast and Spoon, Barley Water				...	...	1
Ordinary Diet	...	...	...	...	...	5
Breast and Bottle, Condensed Milk				...	...	1
Spoon Fed, Cow's Milk...	...	...	...	...	...	1
Bottle, Cow's Milk	...	...	...	...	...	14
Bottle, Cow's and Horlick's Malted Milk					...	1
Bottle, Sterilized Milk		...	...	...	...	5
Bottle, Condensed Milk		...	...	...	...	11
Bottle, Patent Foods		...	...	...	...	3
Unascertained	...	...	...	...	...	1
Total						51

STREETS IN WIGAN FROM WHICH DEATHS FROM DIARRHŒA
HAVE OCCURRED.

	1909	1908		1909	1908
Addison Street	1	—	John Street	1	—
Anderton Street	1	—	Leader Street	1	—
Baker Street	1	—	Leeds Street	1	—
Birkett Bank Terrace ..	1	—	Lime Street	3	—
Bottling Wood	2	—	Myrtle Street	1	—
Bridge End	1	—	Ormandy's Houses	1	—
Cambridge Street	1	1	Oxford Street	1	—
Church Terrace	1	—	Portland Street	2	—
Darlington Street East ..	1	—	Queen Street	1	1
Edith Street	1	—	Russell Street	1	—
Hardybutts	1	2	School Street	2	—
Higham Street	1	1	Seed Street	1	—
Hodges Street	1	—	Spring Street	1	—
Holt Street	1	1	Swift's Square	2	—
Ingram Street	1	1	Whelley	1	—
Ironmonger Lane	1	—	Workhouse	1	—
Jockey Terrace	1	1			

STREETS IN PEMBERTON IN WHICH DEATHS FROM DIARRHŒA
HAVE OCCURRED.

	1909	1908		1909	1908
Alfred Street	1	—	Little Church Street	1	—
Brindley Street	1	—	Ormskirk Road	1	1
Douglas Street	1	—	Queen Street	1	—
Duke Street	1	—	Tunstall Lane	1	1
Hartley Street	1	—	Warrington Road	2	3
Leader Street	1	1			

DIPHTHERIA.

Number of Notifications	34
Number of Deaths, including Croup ...	7
Mortality per 1,000 of Population ...	·07

We have had a decrease in the number of cases notified, namely, 34 against 36 in 1908, and the mortality is less, namely, ·07 per 1,000 of population, against ·10. The following table shows the number of cases notified, and the number of deaths :—

1909.							Notified.	Deaths.
January .. .. .	..	..	..	..	..	..	5	2
February .. .. .	..	..	..	..	..	..	2	—
March .. .. .	..	..	..	..	..	..	2	1
April .. .. .	..	..	..	..	..	..	3	—
May .. .. .	..	..	..	..	..	..	4	—
June .. .. .	..	..	..	..	..	..	1	—
July .. .. .	..	..	..	..	..	..	7	—
August .. .. .	..	..	..	..	..	..	2	—
September .. .. .	..	..	..	..	..	..	1	—
October .. .. .	..	..	..	..	..	..	4	3
November .. .. .	..	..	..	..	..	..	1	1
December .. .. .	..	..	..	..	..	..	2	—
TOTAL.....							34	7

The following is the result of the examinations bacteriologically made at the Thompson Yates Laboratory :—

Number of swabs, 11.

Streptococci and Staphylococci present 2, Bacillus absent 2.

Streptococci present 2.

Mixed Growth, Suspicious Bacilli present 3.

Bacilli Diphtheria present 1. No result 1.

DIPHTHERIA CASES, 1909.

Address.	Sanitary Surroundings.
88, Thieknesse Avenue ..	Yard flagged, drains trapped, pail closet.
8, Harvey's Court	Yard tiled, drains trapped, water closet.
272, Wallgate	Yard flagged drains trapped, pail closet.
154, Darlington Street East (2 cases)	Defective surface of passage, and choked drain in passage, yard flagged, drains trapped, pail closet.
3, Swinley Street	Yard flagged—defective, drains trapped, bath waste-pipes from 1 and 3, Swinley Street, connected and probably syphon one another, long wastepipe—probably foul, pail closet.
38, Market Street	No yard, defective drains, water closet.
Old Elms, Wigan Lane	Yard flagged, drains trapped, water closet.
16, Burlington Street	Yard flagged, drains trapped, pail closet.
227, Scholes	Yard flagged, drains trapped, pail closet.
296, Whelley	Yard flagged and brieked, drains trapped, pail closet.
22, Great George Street ..	Yard flagged—defective, sink wastepipe connected to drain, pail closet, no back door, front kitchen window will not open.
5, Tunstall Lane (P.) ..	Yard part flagged, drains trapped, privy midden.
147, Billinge Road (P.) ..	
5, Kendrick Street	Yard flagged, drains trapped, water closet.
513, Scot Lane (P.)	Yard part flagged, drains trapped, water closet.
5, Clifton Street	Yard flagged, drains trapped, water closet.
172, Wallgate	Yard flagged, drains trapped, pail closet.
27, Kendal Street (2 cases) ..	Yard flagged, drains trapped, pail closet.
4, Birkett Bank	Yard flagged and paved, drains trapped, water closet.
5, Manning Avenue	Yard flagged, drains trapped, water closet.
67, Anderton Street	Yard flagged, drains trapped, pail closet.
90, Beech Hill Lane (2 cases).	Yard flagged, drains trapped, pail closet.
11, Glebe End Street	Yard flagged, drains trapped, pail closet.
1, Kirkless Street	Yard flagged and paved, drains trapped, pail closet.
New Inn, School Street ..	Yard flagged, defective drains in cellar, pail closet, defective downspout.
654, Ormskirk Road (P.) ..	Yard flagged, drains trapped, privy midden.
Baek 31, Marsh Lane.. ..	Yard paved, drains trapped, pail closet, baek to baek houses.
59, Northumberland Street ..	Yard flagged, drains trapped, water closet.
1a, Driving Lane	Yard flagged, drains trapped, pail closet.
213, Gidlow Lane	Yard part flagged, drains trapped, pail closet.
9, Southern Street (P.) ..	Yard flagged, drains trapped, privy.

ERYSIPELAS.

Number of Cases Notified	75
Number of Deaths	5
Mortality per 1,000 of Population...	·053

We have a larger Number of Notifications, and we have 5 deaths.

Insanitary conditions were found in 6 instances.

LIST OF HOUSES IN WHICH CASES OF ERYSIPELAS HAVE OCCURRED DURING 1909.

Address.	Cause.	Condition of Yards and other Remarks.
221, Billinge Road (P.) ..	Probably cold ..	Yard paved, drains trapped, privy midden.
22, Mitchell Street (P.) ..	Probably accident ..	Yard flagged, drains trapped, pail closet.
3, Vere Street ..	Probably cold ..	Yard flagged, drains trapped, pail closet.
76, School Street ..	Probably cold ..	Yard flagged, drains trapped, pail closet.
908, Warrington Road (P.) ..	Probably sore ear ..	Yard part flagged, drains trapped, privy midden.
34, Cambridge Street ..	Probably cold ..	Yard bricked and flagged, drains trapped, pail closet.
142, Wigan Lane ..	Probably cold ..	Yard flagged, drains trapped, water closet.
3, Douglas Road ..	Probably accident ..	Yard tiled, drains trapped, pail closet.
5, Wells Street ..	Probably cold ..	Yard part flagged and bricked, drains trapped, pail closet.
148, Great George Street ..	Probably cold ..	Yard part flagged, drains trapped, pail closet.
46a, Clayton Street ..	Not known ..	Yard flagged, drains trapped, pail closet.
22a, Alfred Street (P.) ..	Probably cold ..	Yard part flagged and bricked, mostly unpaved, drains trapped, privy midden.
259, Billinge Road (P.) ..	Probably cold ..	Yard flagged, drains trapped, privy midden.
4, Water Heyes Terrace ..	Probably cold ..	Yard flagged, drains trapped, pail closet.
26, Poolstock Lane (P.) ..	Probably cold ..	Yard flagged, drains trapped, privy midden.
56, Hodges Street ..	Probably cold ..	Yard flagged, drains trapped, water closet.
33, Albert Street (P.) ..	Probably cold ..	Yard part flagged, drains trapped, privy midden.
64, Corporation Street ..	Probably cold ..	Yard flagged, drains trapped, water closet.
14, Church Street (P.) ..	Probably cold ..	Yard paved, drains trapped, privy midden.
7, Crawford Road ..	Probably accident ..	Yard tiled, drains trapped, pail closet.
12, Jockey Terrace ..	Probably cold ..	Yard paved, drains trapped, waste water closet.
19, Oxford Street ..	Probably cold ..	Yard flagged, drains trapped, pail closet.
86, Platt Lane ..	Probably cold ..	Open yard—paved, drains trapped, pail closet.
54, York Street ..	Probably scratch ..	Yard flagged and tiled, drains trapped, pail closet.
385, Ormskirk Road (P.) ..	Probably accidental cut ..	Yard flagged, drains trapped, privy midden.

LIST OF HOUSES IN WHICH CASES OF ERYSIPELAS HAVE OCCURRED DURING 1909.

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Address.	Cause.	Condition of Yards and other Remarks.
8, Bedford Street ..	Probably cold ..	Yard paved, drains trapped, pail closet.
14, Bryham Street ..	Probably cold ..	Yard paved, drains trapped, waste water closet.
26, Poolstock Lane (P.) ..	Probably cold ..	Yard flagged, drains trapped, privy midden.
7, Wood's Square..	Probably shoe rubbing heel and wearing new stockings ..	Yard concrete, drains trapped, pail closet.
92, Lime Street ..	Probably cold ..	Yard flagged, drains trapped, pail closet.
17, Mill Street ..	Probably cold ..	Yard concrete, drains trapped, pail closet.
51, Delph Street ..	Probably cold ..	Yard flagged, drains trapped, water closet.
28, McCormick Street ..	Probably cold ..	Yard flagged, drains trapped, pail closet.
337, Gidlow Lane..	Probably cold ..	Yard flagged, drains trapped, pail closet.
306, Wallgate ..	Probably cold ..	Yard part flagged, drains trapped, pail closet.
240, Woodhouse Lane ..	Probably cold ..	Yard flagged, drains trapped, pail closet.
102, Miry Lane ..	Not known ..	Yard unpaved, drains trapped, pail closet.
11, Holland Street ..	Probably cold ..	Yard tiled, drains trapped, pail closet—defective.
4, Oxford Street ..	Probably cold ..	Yard flagged, drains trapped, water closet.
9, Chadwick Street ..	Probably cold ..	Yard flagged, drains trapped, privy midden.
217, Ormskirk Road (P.) ..	Probably cold ..	Yard flagged—defective, drains trapped, water closet.
82, Rylands Street ..	Probably cold ..	Yard flagged, drains trapped, waste water closet.
9, River Street ..	Probably cold ..	Yard flagged and bricked, drains trapped, water closet.
143, Wigan Lane ..	Probably accident ..	Yard flagged, drains trapped, pail closet.
134, Woodhouse Lane ..	Probably cold ..	Yard paved, drains trapped, pail closet.
2, Moss Yard, Queen Street ..	Probably fall ..	Yard flagged, drains trapped, pail closet.
6, Altham's Yard..	Probably fall ..	Yard flagged, drains trapped, water closet.
2, Fitzadam Street ..	Probably cold ..	Yard flagged defective drains, trapped, pail closet.
2, Walmer Street ..	Probably cold ..	Yard flagged, drains trapped, privy midden.
2, Brook Lane (P.) ..	Probably cold ..	

LIST OF HOUSES IN WHICH CASES OF ERYSIPELAS HAVE OCCURRED DURING 1909.

Address.	Cause.	Conditions of Yards and other Remarks.
7, Westminster Street (P.)	Probably fall	Yard part flagged, drains trapped, privy midden.
44, Brackley Street (P.)	Probably cold	Yard part flagged, drains trapped, privy midden.
11, Regent Street (P.)	Suffered from Paralysis	Yard paved, drains trapped, privy midden.
349, Ormskirk Road (P.)	Probably cold	Yard tiled, drains trapped, water closet inside, privy midden out.
3, Wells Street	Probably accident	Yard flagged—defective round gully, drains trapped, pail closet.
756, Ormskirk Road (P.)	Probably cold	Yard flagged, drains trapped, privy midden.
25, Coop Street	Probably accident, colliery	Yard flagged, drains trapped, pail closet.
1, Bold Street (P.)	Probably cold	Yard flagged, drains trapped, privy midden.
54, Barnsley Street		Yard concrete, drains trapped, water closet.
14, Wardley Street (P.)	Probably cold	Yard part flagged, drains trapped, privy midden.
89, Tunstall Lane (P.)	Probably cold	Yard flagged, drains trapped, privy midden.
367, Billinge Road (P.)	Probably cold	Yard part flagged, drains trapped, privy midden.
21, Clapgate Lane (P.)	Probably cold	Yard part flagged and bricked, drains trapped, privy midden.
58, Victoria Street (P.)	Probably cold	Yard flagged, drains trapped, water closet.
4, Greenough Street	Probably cold	Yard flagged, drains trapped, pail closet.
62, Ormskirk Road (P.)	Probably cold	Yard paved, drains trapped, privy midden.
R.A.E. Infirmary		
50, Lower Morris Street	Probably cold	Yard flagged, drains trapped, pail closet.
7, Weston Street	Probably cold	Yard flagged, drains trapped, pail closet.
64, Scot Lane (P.)	Probably cold	Yard tiled, drains trapped, privy midden.
369, Warrington Road (P.)	Probably cold	Yard paved, drains trapped, privy midden.
25, Knowles Street	Probably cold	New house—damp, yard flagged, drains trapped, water closet.
14, Ardern Street	Probably cold	Yard part flagged, drains trapped, pail closet.
43, Birkett Bank	Probably cold	Yard flagged and tiled, drains trapped, pail closet.
65, Pool Street	Probably cold	Yard flagged, drains trapped, pail closet.

PUERPERAL FEVER.

Number of cases notified	...	...	8
Number of Deaths	...	...	5
Mortality per 1,000 of population	...	...	·053

We have a decrease in the number of cases notified, and a decrease in the death-rate. None of the cases appear to have been communicated, and everything was done to prevent communication of the disease to others.

SANATORIUM.

The arrangements made in the nursing department have been satisfactory, and the accommodation ample.

The Doecker Hospital is sufficient for the Small Pox cases, and the improvements made, on its removal from the old site, have been of great advantage.

During the year there were 36 cases admitted and discharged at the Pemberton Hospital—Scarlet Fever 35, Erysipelas 1.

The number of infectious cases notified compulsorily is as follows :—

	Notifications.	Removed to Sanatorium.	Died in Sanatorium.
Small Pox	—	—	—
Typhus	—	—	—
Scarlet Fever	730	338 7*	8 1*
Enteric	93	68 6*	12
Diphtheria	34	—	—
Puerperal Fever	8	—	—
Cholera	—	—	—
Membranous Croup..	—	—	—
Erysipelas	75	—	—
Other	—	21 2*	—
Total	940	427	20

In the Sanatorium on December 31st, 1909, there were 45 patients, namely, Scarlet Fever 36, Enteric Fever 2, others 7.

* Cases from Outside Districts.

	Small-pox.	Scarlet.	Enteric.	Others.	Total.
In-patients Jan. 1, '09	—	22	9	1	32
Admitted in 1909 ...	—	338	68	21	427
Discharged „ ...	—	316	66	12	394
Died „ ...	—	8	12	—	20
In-patients Jan. 1, '10	—	36	2	7	45

Some of the “Others” admitted, as per table, were removed to the Sanatorium as Enteric cases.

The number of deaths in the Sanatorium was 20 ; 8 died from Scarlet Fever and 12 from Enteric.

During the year there were 394 patients discharged, and 20 died (Wigan), and 36 patients discharged from Pemberton, making a total of 450.

The number of days they were in was 17,756, or 39·4 days for each patient, against 34·5 days average for 1908.

The total cost of Administration of the Sanatoria (Wigan and Pemberton), 450 patients, is as follows :—

	£	s.	d.
Master, Matron, and Nurses, wages ...	538	12	2
Porters, wages... ..	198	0	0
Food	929	8	8 $\frac{3}{4}$
Stimulants	176	17	5
Crockery, Ironmongery, Repairs, &c. ...	97	5	3
Coal, Coke, and Carting	225	1	2
Medical Requisites	23	10	7
Drapery, &c.	167	13	0
Gas, Water, Electricity, and Repairs ...	243	5	7
Turps, Paint, Soap, &c.	250	11	8 $\frac{1}{2}$
Rent, Rate, and Insurance	111	7	4
Sundries	76	0	10
Medical Superintendent	150	0	0
Clerk	15	16	8
	<u>£3,203</u>	<u>10</u>	<u>5$\frac{1}{4}$</u>

SANATORIUM STAFF.

Master	2 Ward Maids.
House Keeper.	1 Housemaid-Waitress.
5 Nurses.	1 Kitchenmaid.
5 Probationers.	1 Scullery Maid.
1 Laundress.	1 Porter and Gardener.
2 Assistant Laundresses.	1 Assistant Gardener.

PEMBERTON SANATORIUM.

1 Nurse.	1 Temporary Nurse.	1 Caretaker.
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WIGAN SANATORIUM.—TABLE OF ADMISSIONS AND DISCHARGES FOR 1909.

1909.	Admitted.						Discharged.						Died..					
	Small-pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.	Small-pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.	Small-Pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.
January	0	15	6	0	1	22	0	13	9	0	1	23	0	0	2	0	0	2
February ...	0	25	0	0	1	26	0	16	3	0	0	19	0	1	0	0	0	1
March.....	0	22	6	0	1	29	0	22	3	0	0	25	0	1	0	0	0	1
April	0	32	6	0	1	39	0	20	4	0	0	24	0	1	2	0	0	3
May.....	0	25	10	0	5	40	0	24	5	0	4	33	0	1	1	0	0	2
June	0	35	4	0	2	41	0	35	9	0	0	44	0	1	0	0	0	1
July	0	33	0	0	2	35	0	27	2	0	1	30	0	0	0	0	0	0
August	0	41	3	0	1	45	0	45	3	0	0	48	0	1	1	0	0	2
September...	0	27	14	0	0	41	0	32	3	0	1	36	0	0	1	0	0	1
October	0	35	3	0	5	43	0	28	12	0	2	42	0	1	2	0	0	3
November ...	0	22	8	0	2	32	0	33	4	0	1	38	0	0	0	0	0	0
December ...	0	26	8	0	0	34	0	21	9	0	2	32	0	1	3	0	0	4
Total	0	338	68	0	21	427	0	316	66	0	12	394	0	8	12	0	0	20

7 Cases of Scarlet Fever, 6 Enteric, and 2 others were removed from outside Districts to the Sanatorium, and are included in the Table.

CONSTITUTIONAL DISEASES.

TUBERCULAR DISEASES.

Under the heading of Tubercular Diseases we include deaths from Consumptive Diseases, such as Phthisis Pulmonalis, Tabes Mesenterica, Tubercular Meningitis, Wasting Diseases of Infants (Marasmus), and other Tubercular affections.

The number of deaths from Phthisis is 68, against 75 in 1908, and 84 in 1907. The number of deaths from other Tubercular affections is 55, against 77 in 1908, and 38 in 1907.

From Wasting Diseases of Infants we have 50 deaths, against 48 in 1908.

The rates are as follows :—

Phthisis Pulmonalis	·72	per 1,000 of population.
Other Tubercular Diseases	·58	„
Wasting Diseases of Infants	·53	„

If taken together as Tubercular affections we have 173 deaths, or a rate of 1·85 per 1,000 of population.

PHTHISIS AND TUBERCULAR DISEASES BUT NOT INCLUDING MARASMUS.

The deaths occurred in the following wards :—

St. George Ward	..	..	..	..	..	9
Lindsay Ward	..	..	..	..	..	3
St. Catharine Ward	..	..	..	..	..	7
St. Patriek Ward	..	..	..	..	..	15
St. Thomas Ward	..	..	..	..	..	8
Poolstock Ward	..	..	..	..	..	9
Victoria Ward	..	..	..	..	..	8
St. Andrew Ward	..	..	..	..	..	11
Swinley Ward	..	..	..	..	..	3
All Saints Ward	..	..	..	..	..	4
West Pemberton Ward	..	..	..	..	..	11
North Pemberton Ward	..	..	..	..	..	10
Central Pemberton Ward	..	..	..	..	..	8
South Pemberton Ward	..	..	..	..	..	5
In Union Workhouse, but belonging to Wigan	..	..	..	..	..	12

PHTHISIS CASES TREATED IN DOECKER IN 1909.

Case.	Patient.	Age.	Days in.	Where from.	Result.
1	C.O.	32	128	Wigan	Relieved.
2	R.B.	25	290	Wigan	Relieved.
3	M.B.	36	12	Wigan	Left on own accord.
4	W.R.	29	4	Wigan	Left on own accord.
5	J.M.	44	4	Wigan	Unrelieved.
6	J.C.	45	236	Wigan	Relieved.
7	A.F.	26	59	Wigan	Relieved.
8	W.U.	25	127	Wigan	Relieved.
9	W.M.	35	149	Wigan	Relieved.
10	W.G.	28	144	Wigan	Left on own accord.
11	P.B.	35	163	Wigan	Relieved.
12	M.C.	20	81	Wigan	Unrelieved.
13	S.H.	18	115	Aspull	Unrelieved.
14	H.McC	48	58	Wigan	Unrelieved.
15	W.D.	28	—	Wigan	Still in, doing well.
16	T.R.	36	—	Ince	Still in, doing well.
17	T.M.	39	—	Wigan	Still in, doing well.
18	J.A.	26	67	Wigan	Relieved.

DEATHS AND RATES FROM PHTHISIS FOR PAST YEARS.

Year.	No. of Deaths.		Rate per 1,000.
1896	66	..... 1·09
1897	69	..... 1·14
1898	59	..... ·93
1899	59	..... ·94
1900	69	..... 1·09
1901	73	..... 1·18
1902	55	..... ·89
1903	74	..... 1·1
1904	70	..... 1·08
1905	92	..... 1·04
1906	108	..... 1·20
1907	84	..... ·92
1908	75	..... ·81
1909	68	..... ·72

RHEUMATISM.

Rheumatism caused 17 deaths, against 13 deaths in 1908, and 12 in 1907, and we have 99 deaths from heart affections, against 61 in 1908, and 101 in 1907.

LOCAL DISEASES.

Respiratory Diseases, such as Pneumonia and Bronchitis, caused 458 deaths, against 333 in 1908. Pneumonia caused 292, against 179; and Bronchitis caused 166, against 154.

INQUESTS AND UNCERTIFIED DEATHS.

The number of Inquests for 1909 is 151, against 156 for 1908, and 136 in 1907, and the following verdicts have been recorded :—

1.	Natural causes	..	..	..	..	..	53
2.	Accidents, burnt	..	..	..	..	..	16
	„ tram car	..	..	..	..	..	4
	„ motor car	..	..	..	..	..	1
	„ scalded..	..	..	..	..	..	5
	„ colliery	..	..	..	..	..	19
	„ fall downstairs	..	..	..	..	..	5
	„ drowned	..	..	..	..	..	1
	„ falls	..	..	..	..	..	6
	„ fall of wall	..	..	..	..	..	1
	„ railway..	..	..	..	..	..	6
	„ swallowing	..	..	..	..	..	1
	„ trap	..	..	..	..	..	1
	„ poisoned	..	..	..	..	..	1
	„ mill	..	..	..	..	..	1
	„ others	..	..	..	..	..	3
3.	Suicides, hanging	..	..	..	..	..	4
	„ poison	..	..	..	..	..	3
	„ cut throat	..	..	..	..	..	1
4.	Others	..	..	..	..	..	19
							<hr/>
							151
							<hr/>

There were 2 uncertified deaths in 1909, against 2 in 1908, and 0 in 1907.

Premature Birth	...	...	1
Heart Failure	...	...	1

PART III.

General Sanitary Work.



FACTORY AND WORKSHOP ACT, 1901

SHOP HOURS ACTS, 1892 TO 1905

SHOP HOURS ACT, 1904, CLOSING ORDER

MEAT INSPECTION AND SLAUGHTER HOUSES

DAIRIES, COWSHEDS AND MILKSHOPS ORDER, 1885 AND 1886

WATER SUPPLY AND RAINFALL

BLACK SMOKE NUISANCE

PROPERTY UNFIT FOR HUMAN HABITATION

UNPAVED YARDS AND PASSAGES

BOROUGH SURVEYOR'S DEPARTMENT

SCAVENGING

LADY HEALTH VISITOR'S REPORT

MIDWIVES ACT, 1902

NOTIFICATION OF BIRTHS ACT, 1907

EDUCATION ACT, 1902, 1904

SCHOOL MEDICAL OFFICERS' REPORT

PUBLIC ANALYST REPORT

APPENDIX

FACTORY AND WORKSHOP ACT, 1901.

The Workshops have been regularly and systematically visited by Inspector Bishop, also the Factories, on receipt of report from H.M. Inspectors. I subjoin Inspector Bishop's report on the same, also his report on the Shop Hours Acts of 1892-1899, and Closing Order, 1904.

1.—INSPECTION.

Premises.	No. of Inspections.	No. of Written Notices.
Factories (including Factory Laundries) ..	185	6
Workshops (including Workshop Laundries) ..	859	33
Workplaces	—	—
Total	1,044	39

2.—DEFECTS FOUND.

Particulars.	No. of Defects Found.	No. of Defects Remedied.
<i>Nuisances under Public Health Acts :—</i>		
Want of Cleanliness	45	39
Want of Ventilation	14	14
Overcrowding	—	—
Want of Drainage of Floors	—	—
Other Nuisances	11	11
Sanitary { insufficient	5	5
Accommo- { unsuitable or defective	34	20
dation { not separate for sexes	—	—
<i>Offences under the Factory and Workshop Act : ..</i>		
Illegal occupation of underground bakehouse ..	3	3
Breach of special sanitary requirements for bakehouses	67	64
Other offences	12	12
Total	191	168

3.—HOME WORK.

Nature of Work.	OUTWORKERS' LISTS, SECTION 107.						
	Lists Received from Employers.				Number of Addresses of Out-workers received from other Councils.	Number of Addresses of Out-workers forwarded to other Councils.	Notices served on Occupiers as to keeping or sending Lists.
	Twice in the year.		Once in the year.				
	Lists.	Out-wrks.	Lists.	Out-wrks.			
WEARING APPAREL :							
(1) Making, &c. ..	60	171	3	4	3	23	2
(2) Cleaning, &c. ..	—	—	—	—	—	—	—

Number of Inspections of Outworkers' Premises, 151.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.
Workshops	461
Bakehouses	149
Domestic Workshops (not Outworkers)	69
Total Number of Workshops on Register	679

5.—OTHER MATTERS.

Class.	Number.
<i>Matters notified to H.M. Inspector of Factories :—</i>	
Failure to fix Abstract of the Factory and Workshop Act (s. 133)	20
Notified by H.M. Inspector	6
Reports (of action taken) sent to H.M. Inspector	5
Other	5
<i>Underground Bakehouses (s. 101) :—</i>	
Certificates granted during the year	—
In use at the end of the year	8

The number of Workshops on the Register is 461, against 450 for the previous year, being an increase of 11 for the year.

Under Section 5 of the Factory and Workshop Act, 1901, the Factory Inspectors sent six notices regarding sanitary defects, of which five were in connection with Factories, and one in connection with a Workshop.

Attention was given to these matters, and with one exception, where new closets are being built, the notices have been complied with.

In connection with outworkers, occupiers of workshops are not very punctual in sending in their lists, as required by Section 107 of the Factory and Workshop Act. There has also been a decrease both in the number of Lists sent in and in the number of Outworkers.

The condition of the premises of Outworkers were satisfactory from a sanitary point of view.

There was a decrease of four domestic workshops for the year.

The number of Bakehouses on the Register is 149, against 150 for the previous year, being a decrease for the year of one.

LIST OF WORKSHOPS UNDER THE FACTORY
AND WORKSHOP ACT, 1901.

No.	Address.	Trade.	No.	Address.	Trade.
1.—Pennyhurst Mill		Tailor.	58.—1, Church Street		Dressmaker.
2.—290, Wallgate		"	59.—12, Wigan Lane		"
3.—Coffee Mill		"	60.—30, Wigan Lane		"
4.—1, Wallgate		"	61.—138, Wigan Lane		"
5.—Meek's Buildings		"	62.—23, Wigan Lane		"
6.—Meek's Buildings		"	63.—24, Baron Street		"
7.—13, Wallgate		"	64.—29, Mesnes Street		"
8.—105, Wallgate		"	65.—5, Dorning Street		"
9.—9, Standishgate		"	66.—185, Dorning Street		"
10.—114, Standishgate		"	67.—41, Richmond Street		"
11.—55, Standishgate		"	68.—7, Library Street		"
12.—107, Standishgate		"	69.—36, Dicconson Street		"
13.—42, Standishgate		"	70.—3, Dicconson Terrace		"
14.—Church Street		"	71.—2, Pitt Street		"
15.—7, New Market Street		"	72.—21, Market Place		"
16.—37, New Market Street		"	73.—36, Swan Meadow Road		"
17.—22, Bold Street		"	74.—120, Chapel Lane		"
18.—45, Wigan Lane		"	75.—112, Chapel Lane		"
19.—57, Mesnes Street		"	76.—85, Corporation Street		"
20.—27, Mesnes Street		"	77.—51, Corporation Street		"
21.—71, Mesnes Street		"	78.—50, Pool Street		"
22.—10, Library Street		"	79.—70, Pool Street		"
23.—55, Library Street		"	80.—108, Pool Street		"
24.—19, King Street		"	81.—116, Hardybutts		"
25.—30, King Street		"	82.—164, Hardybutts		"
26.—17a, King Street		"	83.—4, Hardybutts		"
27.—11, Dicconson Street		"	84.—35, Hardybutts		"
28.—12, Dicconson Street		"	85.—265, Gidlow Lane		"
29.—27, Dicconson Street		"	86.—21, Hodges Street		"
30.—74, Dicconson Street		"	87.—69, Schofield Lane		"
31.—Brick Kiln Lane		"	88.—1, Westmoreland Street		"
32.—10, Crompton Street		"	89.—4, Worsley Terrace		"
33.—29, Market Place		"	90.—101, Clayton Street		"
34.—21, Hallgate		"	91.—6, Great George Street		"
35.—54a, Market Street		"	92.—73, Greenough Street		"
36.—10, Market Street		"	93.—14, Greenough Street		"
37.—80, Market Street		"	94.—37, Greenough Street		"
38.—56a, Market Street		"	95.—9a, Greenough Street		"
39.—54, Millgate		"	96.—2, Turner Street		"
40.—130, Gidlow Lane		"	97.—13, Charles Street		"
41.—10, Worsley Terrace		"	98.—13, Duke Street		"
42.—Clifton Street		"	99.—96, Barnsley Street		"
43.—20, Rodney Street		"	100.—57, Springfield Road		"
44.—24, Scarisbrick Street		"	101.—121, Darlington Street East		"
45.—90, Darlington Street East		"	102.—49, Frog Lane		"
46.—15, Queen Street		"	103.—48, Birkett Bank		"
47.—2, Scholes		"	104.—2, Holme Street		"
48.—18, Makinson Arcade		"	105.—10, Ratcliffe Street		"
49.—3, Fleet Street (P.)		"	106.—40, Poolstock Lane		"
50.—832, Ormskirk Road (P.)		"	107.—55, Billinge Road		"
51.—737, Ormskirk Road (P.)		"	108.—6, Chapel Street		"
52.—788, Ormskirk Road (P.)		"	109.—20, Victoria Avenue		"
53.—793, Ormskirk road (P.)		"	110.—305, Ormskirk Road		"
54.—826, Ormskirk Road (P.)		"	111.—11, Duke Street		"
55.—17-23, Standishgate	Dressmaker.		112.—13, Duke Street		"
56.—7, Standishgate	"		113.—695, Ormskirk Road		"
57.—11, Standishgate	"		114.—646, Ormskirk Road		"

WORKSHOPS UNDER THE FACTORY AND WORKSHOP ACT,—*Continued.*

No.	Address.	Trade.	No.	Address.	Trade.
115.—710, Ormskirk Road		Dressmaker.	173.—Woodcock Street		Milliner.
116.—835, Ormskirk Road		"	174.—163, Scholes		"
117.—91, Ormskirk Road		"	175.—56, Scholes		"
118.—6, Kenyon Road		"	176.—74, Scholes		"
119.—85, Enfield Street		"	177.—164, Scholes		"
120.—322, Woodhouse Lane		"	178.—154, Scholes		"
121.—178, Woodhouse Lane		"	179.—Market Hall		"
122.—65, Scholes		"	180.—56, Market Hall		"
123.—47, Scholes		"	181.—58, Market Hall		"
124.—71, Scholes		"	182.—8, Makinson Arcade		"
125.—45, Scholes		"	183.—15, Makinson Arcade		"
126.—232, Wallgate		"	184.—4, Fleet Street (P.)		"
127.—111, Wallgate		"	185.—739, Ormskirk Road		"
128.—19, Vauxhall Road		"	186.—587, Ormskirk Road		"
129.—Darlington Street		"	187.—12, Ormskirk Road		"
130.—62, Darlington Street		"	188.—745, Ormskirk Road		"
131.—36, Darlington Street		"	189.—134, Ormskirk Road		"
132.—24, Darlington Street		"	190.—405, Warrington Road		"
133.—173, Darlington Street East		"	191.—339, Warrington Road		"
134.—11, Whelley		"	192.—60, Standishgate		Clothing.
135.—12, Whelley		"	193.—34, Market Place		"
136.—Warrington Road		"	194.—37, Market Street		"
137.—303, Warrington Road		"	195.—7, Millgate		"
138.—590, Warrington Road		"	196.—16, Greenough Street		"
139.—1, Barley Brook Street		"	197.—20, Greenough Street		"
140.—34, Poolstock		"	198.—72, Darlington Street		"
141.—15, Poolstock		"	199.—Pennyhurst Mill		"
142.—142, Park Road		"	200.—124, Wallgate		"
143.—86, Park Road		"	201.—91, Wallgate		"
144.—84, Park Road		"	202.—Barrack Yard		"
145.—36, Park Road		"	203.—Rowbottom Square		"
146.—6, Standishgate		"	204.—70, Scholes		"
147.—19, Standishgate		Milliner.	205.—90, Scholes		"
148.—7, Standishgate		"	206.—108, Scholes		"
149.—35, Standishgate		"	207.—Market Arcade		"
150.—44, Standishgate		"	208.—6, Makinson Arcade		"
151.—1, Church Street		"	209.—24a, Woodhouse Lane		"
152.—21, Mesnes Street		"	210.—15, Fleet Street (P.)		"
153.—35, Mesnes Street		"	211.—9, Woods Grove		"
154.—67, Mesnes Street		"	212.—31, Brackley Street		"
155.—6, Library Street		"	213.—76, Ormskirk Road		"
156.—9, Library Street		"	214.—115, Ormskirk Road		"
157.—23, Market Place		"	215.—33, Standishgate		Boot Repairs.
158.—48, Market Place		"	216.—Powell Street		"
159.—38, Market Place		"	217.—45, Wigan Lane		"
160.—8a, Market Street		"	218.—79, Wigan Lane		"
161.—16, Schofield Lane		"	219.—73, Wigan Lane		"
162.—Schofield Lane		"	220.—17, Mesnes Street		"
163.—21, Frog Lane		"	221.—4, Orchard Street		"
164.—4, Darlington Street		"	222.—2, King Street		"
165.—36, Darlington Street		"	223.—19, Market Place		"
166.—24, Darlington Street		"	224.—34, Market Place		"
167.—61, Darlington Street		"	225.—76, Hallgate		"
168.—70, Wallgate		"	226.—62, Market Street		"
169.—158, Wallgate		"	227.—52, Millgate		"
170.—164, Wallgate		"	228.—22, Millgate		"
171.—Woodcock Street		"	229.—37, Chapel Lane		"
172.—Woodcock Street		"	230.—72, Corporation Street		"

WORKSHOPS UNDER THE FACTORY AND WORKSHOP ACT.—*Continued.*

No.	Address.	Trade.	No.	Address.	Trade.
31.—66, Pool Street		Boot Repairs.	289.—174, Wallgate		Clogger.
32.—86, Pool Street		"	290.—83, Scholes		"
33.—138, Gidlow Lane		"	291.—103, Scholes		"
34.—178, Gidlow Lane		"	292.—149, Scholes		"
35.—111, Gidlow Lane		"	293.—233, Scholes		"
36.—87, Schofield Lane		"	294.—50, Scholes		"
37.—39, Greenough Street		"	295.—160, Scholes		"
38.—8, Greenough Street		"	296.—118, Scholes		"
39.—11, Greenough Street		"	297.—84, Scholes		"
40.—46, Springfield Road		"	298.—245, Scholes		"
41.—61, Darlington Street East		"	299.—33, Scholes		"
42.—116, Darlington Street East		"	300.—208, Woodhouse Lane		"
43.—11, Frog Lane		"	301.—224, Woodhouse Lane		"
44.—39, Darlington Street		"	302.—Martland Mill		"
45.—136, Wallgate		"	303.—105, Poolstock Lane		"
46.—12, Wallgate		"	304.—281, Billinge Road		"
47.—175, Scholes		"	305.—59, Billinge Road		"
48.—10, Scholes		"	306.—3, Enfield Street		"
49.—127, Woodhouse Lane		"	307.—175, Enfield Street		"
50.—113, Woodhouse Lane		"	308.—37, Brackley Street		"
51.—47, Woodhouse Lane		"	309.—92, Ormskirk Road		"
52.—17, Poolstock Lane		"	310.—831, Ormskirk Road		"
53.—22, Church Street (P.)		"	311.—411, Ormskirk Road		"
54.—1, Kendal Street		"	312.—Speneer's Fold		"
55.—819, Ormskirk Road		"	313.—425, Warrington Road		"
56.—809, Ormskirk Road		"	314.—12, Warrington Road		"
57.—814, Ormskirk Road		"	315.—375, Warrington Road		"
58.—69, Ormskirk Road		"	316.—57, Park Road		"
59.—131, Ormskirk Road		"	317.—1, Chapel Street		"
60.—162, Ormskirk Road		"	318.—1, Bridgewater Street		"
61.—397, Ormskirk Road		"	319.—102, Wigan Lane		Saddler.
62.—735, Ormskirk Road		"	320.—8, Mesnes Street		"
63.—240, Warrington Road		"	321.—5, Dorning Street		"
64.—Norfolk Street		"	322.—17, Millgate		"
65.—161, Park Road		"	323.—90, Darlington Street		"
66.—9, Market Place		Clogger.	324.—53, Wallgate		"
67.—134, Chapel Lane		"	325.—2, Ormskirk Road		"
68.—110, Chapel Lane		"	326.—Powell Street		"
69.—42, Corporation Street		"	327.—38, Standishgate		Jeweller.
70.—69, Beech Hill Avenue		"	328.—46, Market Place		"
71.—72, Bryom Street		"	329.—25, Market Street		"
72.—41, Hardybutts		"	330.—92, Wallgate		"
73.—74, School Street		"	331.—95, Greenough Street		"
74.—72, Schofield Lane		"	332.—181, Wallgate		"
75.—33, Platt Lane		"	333.—53, Scholes		"
76.—Lord Street		"	334.—27, Makinson Arcade		"
77.—Wiend		"	335.—22, Standishgate		Plumber.
78.—31, Whelley		"	336.—85, Standishgate		"
79.—60, Whelley		"	337.—102, Standishgate		"
80.—69, Whelley		"	338.—Clifton Street		"
81.—2, Cambridge Street		"	339.—Coppull Lane		"
82.—92, Frog Lane		"	340.—Crompton Street		"
83.—138, Frog Lane		"	341.—35, Millgate		"
84.—31, Birkett Bank		"	342.—Millgate		"
85.—53, Queen Street		"	343.—43, Greenough Street		"
86.—74, Lime Street		"	344.—85, Greenough Street		"
87.—146, Wallgate		"	345.—Barnsley Street		"
88.—154a, Wallgate		"	346.—Rodney Street		"

WORKSHOPS UNDER THE FACTORY AND WORKSHOP ACT.—*Continued.*

No.	Address.	Trade.	No.	Address.	Trade.
347.—278, Wallgate		"	405.—58, Millgate		Carver.
348.—Clarence Yard		"	406.—Crofter's Arms Yard		Cooper.
349.—166, Ormskirk Road		"	407.—Boundary Street		"
350.—52, Poolstoeck		"	408.—Platt Lane		Joiner.
351.—91, Park Road		"	409.—Darlington Street East		"
352.—113, Standishgate		Painter.	410.—Kenyon Road		"
353.—Royal Oak Yard		"	411.—Union Bridge		"
354.—63, Wigan Lane		"	412.—Station Road		"
355.—Commereial Yard		"	413.—Station Road		Cycle Repair
356.—Barraek Yard		"	414.—94a, Greenough Street		"
357.—176, Scholes		"	415.—72, Market Street		"
358.—15, Powell Street		"	416.—28, King Street		"
359.—15a, School Lane		"	417.—Ormskirk Road		"
360.—57, Caroline Street		"	418.—31, King Street		"
361.—37, Peet Street		"	419.—Clayton Street		Tin Plate Workers
362.—Aeton's Yard		"	420.—Pottery Road		"
363.—New Square		Shoeing Smith.	421.—65, Seholes		"
364.—Briek Kiln Lane		"	422.—182, Seholes		"
365.—16, Millgate		"	423.—66, Millgate		"
366.—89, Chapel Lane		"	424.—76, Scholes		"
367.—Henhurst Bridge		"	425.—Millgate		Tripe Dresser
368.—Platt Lane		"	426.—Watmough's Yard		"
369.—Coffee House		"	427.—Gidlow Lane		"
370.—266, Wallgate		General Smith.	428.—Watmough's Yard		Tallow Melter
371.—Rowbottom Square		"	429.—Millgate		"
372.—Stanley Street		"	430.—Jackson's Square		Chandler
373.—White Street		"	431.—Henhurst Bridge		Marine Stores
374.—Henhurst Bridge		Wheelwright.	432.—4, Orchard Street		"
375.—Miry Lane		"	433.—Faggy Lane		"
376.—Platt Lane		"	434.—Douglas Street		"
377.—Darlington Street		"	435.—Bolton Street		"
378.—218, Wallgate		"	436.—Princess Street		"
379.—Hartley Street		"	437.—Miry Lane		Coffin Maker
380.—Chapel Street		"	438.—Powell Street		"
381.—Smithy Brook		"	439.—Doulgas Street		Soap Boiler
382.—Powell Street		"	440.—Wallgate		"
383.—21, Standishgate		Cabinet Makers.	441.—Gower Street		"
384.—76, Standishgate		"	442.—Douglas Street (P.)		Preserve Works
385.—Soho Street		"	443.—Bradford Place		"
386.—Douglas Side		"	444.—Little Lane		Ginger Beer
387.—Douglas Side		"	445.—Douglas Street		"
388.—72, Standishgate		Ice Cream.	446.—Sharp Street		"
389.—62, Greenough Street		"	447.—Station Road		"
390.—63, Darlington Street East		"	448.—19, Bradshaw Street		Clay Pipes
391.—17, Hope Street		Scales.	449.—23, Wiend		Brass Foundry
392.—Hope Street		"	450.—69, Darlington Street		"
393.—Station Road		"	451.—Clayton Street		"
394.—18, Wigan Lane		Laundry.	452.—Great Acre		Hard Confectioner
395.—Mariebonne		"	453.—44, Sehofield Lane		"
396.—Holme Terrace		"	454.—Greenough Street		"
397.—33, Mesnes Street		Knitting.	455.—Bishopgate		"
398.—Ormskirk Road		"	456.—Wiend		Brush Maker
399.—26, Poolstoeck		"	457.—19, Warrington Lane		French Polisher
400.—39, Library Street		Picture Framers.	458.—Woodeock Street		Paper Box Maker
401.—32, Darlington Street		"	459.—23, Makinson Arcade		Umbrellas
402.—5, Barraek Yard		"	460.—20, Makinson Arcade		Mantles
403.—121, Ormskirk Road		"	461.—122, Seholes		Sausage Maker
404.—825, Ormskirk Road		"			

BAKEHOUSES.

The bakehouses have been regularly visited, and when any nuisance has been discovered, notice has been served. The regulations as to linewashing, cleanliness, &c., have been enforced. The underground bakehouses have been kept in a sanitary condition.

The following is a list of Bakehouses.

No.	Address.	Trade.	No.	Address.	Trade.
1.—34,	Wigan Lane	Confectioner.	47.—2,	Pottery Road	Confectioner.
2.—36,	Wigan Lane	"	48.—31,	Caroline Street	"
3.—59,	Wigan Lane	"	49.—75,	Caroline Street	"
4.—33,	Market Place	"	50.—32,	Market Street	"
5.—52,	Market Place	"	51.—34,	Market Street	"
6.—60,	Market Place	"	52.—58,	Market Street	"
7.—19,	Mesnes Street	"	53.—66,	Market Street	"
8.—23,	Mesnes Street	"	54.—31,	Market Street	"
9.—47,	Mesnes Street	"	55.—10,	Standishgate	"
10.—12,	Wallgate	"	56.—45,	Standishgate	"
11.—54,	Wallgate	"	57.—120,	Standishgate	"
12.—216,	Wallgate	"	58.—25,	Greenough Street	"
13.—288,	Wallgate	"	59.—62,	Greenough Street	"
14.—37,	Queen Street	"	60.—81,	Greenough Street	"
15.—2,	Warrington Lane	"	61.—19,	Poolstock Lane	"
16.—52,	Scholes	"	62.—111,	Poolstock Lane	"
17.—24,	Scholes	"	63.—4,	Lorne Street	"
18.—47a,	Scholes	"	64.—26,	Darlington Street	"
19.—96,	Scholes	"	65.—53,	Darlington Street	"
20.—100,	Scholes	"	66.—42,	Darlington Street	"
21.—116,	Scholes	"	67.—77,	Darlington Street East	"
22.—122,	Scholes	"	68.—162,	Darlington Street East	"
23.—191,	Scholes	"	69.—2,	Kendal Street	"
24.—237,	Scholes	"	70.—3,	Kendal Street	"
25.—227,	Scholes	"	71.—76,	Enfield Street	"
26.—247,	Scholes	"	72.—109,	Enfield Street	"
27.—232,	Scholes	"	73.—161,	Enfield Street	"
28.—7,	Chancery Street	"	74.—40,	Victoria Street (P.)	"
29.—16,	Portland Street	"	75.—75,	Ormskirk Road	"
30.—10a,	Hardybutts	"	76.—71,	Ormskirk Road	"
31.—18,	Harrogate Street	"	77.—131,	Ormskirk Road	"
32.—61,	Schofield Lane	"	78.—318,	Ormskirk Road	"
33.—126,	Chapel Lane	"	79.—	Ormskirk Road	"
34.—81,	Park Road	"	80.—	Ormskirk Road	"
35.—104,	Park Road	"	81.—400,	Ormskirk Road	"
36.—162,	Woodhouse Lane	"	82.—613,	Ormskirk Road	"
37.—132,	Woodhouse Lane	"	83.—805,	Ormskirk Road	"
38.—217,	Woodhouse Lane	"	84.—811,	Ormskirk Road	"
39.—106,	Gidlow Lane	"	85.—213,	Warrington Road	"
40.—142,	Gidlow Lane	"	86.—310,	Warrington Road	"
41.—175,	Gidlow Lane	"	87.—419,	Warrington Road	"
42.—65,	Hodges Street	"	88.—447,	Warrington Road	"
43.—71,	Barnsley Street	"	89.—700,	Warrington Road	"
44.—16,	Rupert Street	"	90.—266,	Billinge Road	"
45.—38,	Vine Street	"	91.—25,	Fleet Street	"
46.—22,	Earl Street	"	92.—26,	Chapel Street (P.)	"

BAKEHOUSES.—*Continued.*

No.	Address.	Trade.	No.	Address.	Trade.
93.—78, Scholes		Baker.	122.—45, Queen Street		Baker.
94.—217, Scholes		,,	123.—18, Catherine Street		,,
95.—239, Scholes		,,	124.—54, Caroline Street		,,
96.—89, Scholes		,,	125.—59, Caroline Street		,,
97.—3, Vauxhall Road		,,	126.—61, Standishgate		,,
98.—Leigh Street		,,	127.—129, Standishgate		,,
99.—42, Whelley		,,	128.—46, Greenough Street		,,
100.—Thompson Street		,,	129.—72, Pool Street		,,
101.—Appleton Street		,,	130.—84, Pool Street		,,
102.—142, Hardybutts		,,	131.—66, Corporation Street		,,
103.—Boundary Street		,,	132.—New Market Street		,,
104.—103, Schofield Lane		,,	133.—Kenyon Road		,,
105.—118, Schofield Lane		,,	134.—Dorning Street		,,
106.—120, Schofield Lane		,,	135.—26, Florence Street		,,
107.—144, Chapel Lane		,,	136.—Spring Gardens		,,
108.—Wood Street		,,	137.—9, Enfield Street		,,
109.—25, Leader Street		,,	138.—83, Ormskirk Road		,,
110.—39, Kirkless Street		,,	139.—78, Ormskirk Road		,,
111.—Andrew Street		,,	140.—215, Ormskirk Road		,,
112.—Orchard Street		,,	141.—752, Ormskirk Road		,,
113.—5, Pitt Street		,,	142.—767, Ormskirk Road		,,
114.—89, Wigan Lane		,,	143.—6, Warrington Road		,,
115.—163, Wigan Lane		,,	144.—73, Warrington Road		,,
116.—Millgate		,,	145.—47, Billinge Road		,,
117.—108, Wallgate		,,	146.—19, Fleet Street		,,
118.—119, Wallgate		,,	147.—14, Chapel Street (P.)		,,
119.—248, Wallgate		,,	148.—48, Northumberland Street		,,
120.—108, Frog Lane		,,	149.—43a, City Road		,,
121.—136, Frog Lane		,,			

SHOP HOURS ACT, 1892-1905.

The object of these Acts is to restrict the number of hours young persons are allowed to work.

No young person shall be employed in or about a shop for a longer period than seventy-four hours, including meal times, in any one week.

During the year 1909 very few visits were made to shops. Observations of closing times were frequently taken, which caused thirty-nine visits to be made. Seven were found to be without abstracts, which were at once obtained.

One proprietor was cautioned for employing a young person for more hours than the Act allows.

One proprietor was cautioned for employing young person in the shop after having worked under the Factory and Workshop Act during the day contrary to Section 3 (2) of this Act.

SHOP HOURS ACT, 1904.—CLOSING ORDER. HAIRDRESSERS' AND BARBERS' SHOPS.

This Order, made under powers granted by the Shop Hours Act, 1904, states that Barbers' and Hairdressers' Shops shall close at the following hours :

Mondays, Tuesdays, and Thursdays...	8-30 p.m.
Wednesdays	1 p.m.
Fridays	9 p.m.
Saturdays	11 p.m.

Under the above Order four hundred and fifty-eight visits were made during the day, and five hundred and fifty-three visits at night.

One proprietor was summoned for keeping open on two separate days after closing time under the Order, and in each case, fined 5s. and costs.

One complaint was received that two lads working in pit during the day were employed as lather lads ; on visiting the shop I found they were two school lads.

Signed,

F. G. BISHOP,

Inspector.

MEAT INSPECTION AND SLAUGHTER-HOUSES.

The Slaughter-houses have been regularly visited by the Inspectors, and I have myself paid many visits and surprise visits.

The butchers send frequently to have tuberculosed beasts examined, and when condemned readily surrender the meat.

The sanitary condition of the various Slaughter-houses is not good—in most cases bad—and are a long way off complying with the requirements of the Local Government Board. Nothing short of a Public Abattoir can give us a place fit for killing meat for human consumption.

No inspections of live cattle have been done during the year, but when possible in the future this shall be done.

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER, 1885 & 1886.

The milk supply on the whole is good, but more care should be exercised by the dairymen in reference to cleanliness. The milkers and distributors of the milk should be more cleanly in their own persons, and should look more closely after the utensils.

I subjoin Mr. Woods' Veterinary Inspector's report for 1909 :—

Gentlemen,

During the year 1909 upwards of 160 official visits have been paid to the 44 Cowsheds within the Borough area, and the udders of every cow examined. Five cases of Tubercular udders were discovered and satisfactorily dealt with.

One new and satisfactory cowshed has been built in the place of an old condemned one, and two cowsheds have been entirely re-constructed. Several have had the flooring re-laid and properly channelled and drained.

The periodical whitewashing of the cowsheds has been well attended to.

I have taken the opportunity kindly offered me by the Veterinary Inspectors of visiting several cowsheds in Liverpool and Manchester, and am glad to say that speaking generally, the Cowsheds in the Borough of Wigan compare quite favourably with these two cities.

No official visits have been paid to any cowshed outside the Borough.

The new regulations regarding the Milk Supply which I mentioned in my last year's report, and which include compulsory notification of all udder affections, were presented in a bill to Parliament by Mr. John Burns, but the Bill was subsequently dropped.

It will probably be re-introduced in the present Parliament.

I propose, with the concurrence of the Medical Officer of Health, that samples of mixed milk from cowsheds in which there are clinically tubercular cattle should from time to time be sent for Bacteriological examination, as it seems to be proved that occasionally a cow can give tubercular milk even though the udder shows no sign of disease.

Yours obediently,

WILLIAM WOODS.

County Borough of Wigan.

APRIL,



1910.

TUBERCULOSIS.

ROYAL COMMISSION'S REPORT.

NEED FOR CLEANLINESS.

WM. WOODS,

VETERINARY SURGEON.

WIGAN :

Thos. Wall and Sons Limited, Printers, "Observer" Office.

TUBERCULOSIS.

ROYAL COMMISSION'S REPORT.

NEED FOR CLEANLINESS.

The third interim report of the Royal Commission appointed to inquire into the relations of human and bovine tuberculosis was issued in January, 1909, and although the report is not a long one, it is of very great importance, and contains a most interesting and instructive account of certain experiments carried out regarding the infectivity of the milk and secretions of naturally-infected tuberculous cows; that is, cows that had contracted the disease in the ordinary way. The Commissioners commence their report by availing themselves of the opportunity to put upon record their deep sense of the loss caused, not only to themselves, but also to the whole country, by the lamented death of Sir Michael Foster, the late Chairman of the Commission.

A large proportion of experimental work on diseases in animals must of necessity be based on the artificial production of the disease in the animals used; and, however carefully done, artificially-induced disease may possibly differ to a greater or less extent from the same disease

acquired from natural sources. The value of the present report of the Royal Commission is, therefore, much enhanced by the fact, as stated by the Commissioners, that the cows employed for the experiments, though few in number, had all contracted the disease through the ordinary channels. They were all tuberculous when procured for the Commission, and may even have been utilised to supply milk to the general public up to the time that they were purchased by the Commission.

The Royal Commission in previous reports expressed their opinion very strongly, as a result of their investigations, that bovine tuberculosis is communicable to human beings, and that a very considerable amount of disease and loss of life, especially among infants and children, must be attributed to the consumption of cows' milk containing tubercle bacilli.

NEW DANGER.

Tuberculosis involving the udder is comparatively common in cows and it has for a long time been generally accepted that milk from a cow suffering from tuberculosis of the udder contains tubercle bacilli, and is, therefore, dangerous to human beings consuming it. This fact is so well known that many dairymen, for their own sake, if not from a public health point of view, frequently eliminate from their herds any cows showing visible signs of udder disease. But the present report of the Royal Commission points to another danger, and clearly proves that the milk of a cow suffering from cough or emaciation due to tuberculosis is probably highly infective, even though the udder itself may be perfectly healthy.

The report goes on to deal with the infectivity of the manure from tuberculous cows, and the fact that the experiments made prove, without the shadow of a doubt, that this matter may in a large [proportion of

cases contain living and virulent tubercle bacilli in large numbers, draws attention to a great but hitherto less obvious danger.

INFECTION OF PIGS.

Six cows were selected for the purpose of these experiments, three of which were clinically diseased—that is, showed obvious symptoms, such as emaciation and cough; the remaining three were apparently in good health, and were found to be tuberculous only by means of the tuberculin test. The experiments proved that the milk from the three clinically-affected cows readily produced tuberculosis in the animals inoculated and fed with it, even when relatively small doses were used.

It seems specially important to note that all the swine fed with the milk of these particular cows became tuberculous, for it is well known that it is a common practice in many farms to use the milk from sickly cows to feed pigs, which, in all probability, are eventually used for human food. The milk from the other cows not clinically affected did not produce tuberculosis when inoculated into guinea-pigs.

The manure from five of the six cows was found to be highly infective; whether used for inoculation or feeding experiments, it produced tuberculosis in both the swine and the guinea-pigs experimented upon. In the cases of the three cows that were clinically-diseased, it was found that the inoculation of very small doses of this matter produced tuberculosis in all but one of the guinea-pigs inoculated, and that all the swine fed became tuberculous. That from two of the apparently healthy animals gave rise to tuberculosis in some of the guinea-pigs and swine used, although post-mortem examination showed that the tuberculous lesions in these cows were small and limited in area.

CLEANER COWSHEDS.

It is obvious, as a result of these experiments, that far greater attention to cleanliness than already obtains is not only to be desired, but should be insisted upon. The statement made by the Commissioners in their report that the subject matter of their experiments may find its way into the milk is not overdrawn. Anyone who is only slightly acquainted with the interior of cowsheds must know how easily the teats and udders of the cows may and do become soiled, and how very rarely any cleansing process is carried out; while a very superficial examination of the sediment found in the bottom of milk cans will often reveal deposits of various kinds of cowshed refuse. In many dairy farms no attempt is made to cope with the dirt of the cowshed, and the cows are never washed or groomed,

On some of the more modern farms attention is paid to cleanliness; the sheds are washed out, the men do wash their hands and wear clean aprons, and the cows are cleaned before being milked, but at the present time these farms are in the minority. Some attempt is made to remove large particles of dirt from the milk by straining it, but no amount of straining will remove tubercle bacilli if once they have obtained access to the milk. The report of the Royal Commission is a strong argument for increased stringency in the regulations for the cleanliness of dairies and cowsheds. It will strengthen the hands of local authorities who already attempt to deal with the matter, and point out to others the grave danger of neglecting it.

KOCH'S THEORIES AGAIN DENIED.

At the International Congress on Tuberculosis, recently held in Washington, the subject of the relationship of human and bovine tuberculosis occupied a very prominent position. Professor Koch practically restated the opinion he held in 1901, that the danger of the infection of

human beings from the milk of tuberculous cows was so slight that it could almost be disregarded. In holding this view Professor Koch, with perhaps a few of his immediate followers, would seem to stand almost alone; but the great weight attaching to his name, and the authority which his position gives to any statement made by him, make any such statement a valuable weapon in the hands of those whose interests lead them to oppose any regulations framed to protect the public against the dangers arising from the consumption of the milk of tuberculous cows.

Special importance must, therefore, be attached to the fact that in their third interim report the members of the Royal Commission repeat the weighty statement made both in the first and in their second interim reports that the milk of tuberculous cows must be considered dangerous to human beings. The experiments carried out and referred to in the third interim report considerably strengthen this position, for the Commissioners point out that the presence of tuberculous cows, in company with healthy cows in the same sheds, is distinctly dangerous, some of the tubercle bacilli which escape from their bodies being almost certain to find their way into the milk.

FURTHER INVESTIGATION NECESSARY.

At the end of July last a discussion took place in the House of Commons, from which it appeared that the work of the Royal Commission was likely to be brought to a close shortly. From the statement made by the President of the Local Government Board during the discussion, to the effect that he had been asked to prolong the investigations of the Royal Commission, and that, although he was unwilling to do so, he was prepared to consider some scheme by which their researches might be continued, it may be inferred that many problems connected with tuberculosis closely affecting the public health still remain for investigation. The expense of the work of the Royal Commission, large as it has been,

is the merest trifle when the wide extent of the work it has done and the valuable results obtained are considered, and the nation will have just reason for displeasure if any motives of economy are allowed to interfere with a continued, and, if necessary, prolonged, investigation into this terrible disease.

It is earnestly to be hoped that the precedent set by this Commission of experimental research, under their own supervision, in laboratories erected by themselves, will be followed by any other commissions that may be appointed to decide scientific problems requiring investigation, and that every effort will be made that the establishment at Stansted, provided by the generosity of Lord Blyth, may be retained by the Government for further investigation on the lines followed with such conspicuous success by the Royal Commission on Tuberculosis.

WATER SUPPLY.

The water supply has been continuous and of good quality. There has been no necessity to have a curtailment or intermittent supply, which is always dangerous.

The following are summaries of the reports on the analysis of the water made by the Public Analyst :—

January.—Hardness before boiling, 8·5 degrees ; after, 5·0 degrees. Though the albuminoid ammonia is higher than usual, this has no hygienic significance, since there is no evidence of drainage or similar impurity. (Wigan).

February.—Hardness before boiling, 8·5 degrees ; after, 6·0 degrees. The albuminoid ammonia figure is again high, in spite of which there is no evidence of drainage or similar pollution. Temporary and permanent hardness remain about normal. (Wigan).

March.—Hardness before boiling, 4·7 degrees ; after, 3·2 degrees. There is a considerable improvement organically this month, and a diminution in both types of hardness. (Wigan).

April.—Hardness before boiling, 9·5 degrees ; after 7·5 degrees. The good quality of the water is maintained, but the hardness is rather higher than usual. (Wigan).

May.—Hardness before boiling, 9·5 degrees ; after, 6·5 degrees. This month's results are the best since last August and show the supply to be of excellent quality. (Wigan).

June.—Hardness before boiling, 8·0 degrees ; after, 5·7 degrees. The albuminoid ammonia is again up to ·08 parts per million, but an additional test ("amount of oxygen required to oxidise organic and other reducible matter") gives no evidence of contamination. The supply is quite safe, and about the average in regard to hardness.

July.—Hardness before boiling, 12·5 degrees ; after, 1·5 degrees. This supply is of satisfactory quality. It is rather hard, most of the hardness being temporary in character. (Pemberton).

August.—Hardness before boiling, 9·0 degrees ; after, 6·0 degrees. The albuminoid ammonia is slightly in excess of the normal quantity, but the water is, organically, quite satisfactory. (Wigan).

September.—Hardness before boiling, 10·0 degrees ; after, 6·5 degrees. The quality of this sample is about equal to the monthly average, and satisfactory in all respects. (Wigan).

October.—Hardness before boiling, 6·5 degrees ; after, 3·5 degrees. This is the softest water recorded since last March ; organically it is satisfactory. (Wigan).

November.—Hardness before boiling, 8·2 degrees ; after, 4·4 degrees. The albuminoid ammonia is slightly over the normal amount but the sample all round is of satisfactory quality. (Wigan).

December.—Hardness before boiling, 9·0 degrees; after 5·7 degrees. The albuminoid ammonia is still rather in excess of the normal; otherwise the supply remains satisfactory. (Wigan).

RAINFALL, 1909.

AT WORTHINGTON.

Month.	Rainfall in Inches and Tenths.			No. of days on which rain fell, being ·01 of an inch or more.
January	1·70			20
February	1·08			10
March	2·95			21
April	2·87			18
May	2·80			13
June	2·98			19
July	5·57			24
August	3·14			20
September	2·95			15
October	5·18			23
November	1·62			17
December	6·77			26
	39·61			226

The mean average rainfall for the past 51 years, 37·29 inches.

Average consumption per head per day (estimated population, 68,858), was 18·56 gallons.

RAINFALL, 1909.

AT BISPHAM.

Month.	Rainfall in Inches and Tenths.			No. of days on which rain fell, being ·01 of an inch or more.
January	1·86			17
February	0·87			9
March	2·90			19
April	2·68			15
May	2·96			11
June	2·81			12
July	6·11			23
August	3·88			16
September	3·21			13
October	5·55			21
November	1·83			14
December	6·81			25
	41·50			195

Average consumption per head per day (estimated population, 24,710), was 9·98 gallons.

BLACK SMOKE NUISANCE.

Observations have been taken, and many cautions given, but no prosecutions have taken place.

PROPERTY UNFIT FOR HUMAN HABITATION.

The following houses were scheduled under the Housing of the Working Classes Act, 1890, and were dealt with by the Committee:—

2, 3, 4, 5, 6, Ashton's Yard, Duke Street.

1, 2, 3, Worsley's Yard, School Street.

UNPAVED YARDS AND PASSAGES.

The following is a list of unpaved yards and passages that have been dealt with during 1909:—

11—35, Swann Street.

The following have also been dealt with for defective surface of yards, &c.:—

58, Dicconson Street.
4, 5, 6, Clephan's Yard, School Lane.
64, Miry Lane.
232–248, 261, Woodhouse Lane.
82, Rylands Street.
6–16, 7–13, Seed Street.
23, Upper Morris Street.
24, Pitt Street.
Bold's Yard, Billinge Road.
63, Schofield Lane.
210, and others, Wallgate.

1, 3, 5, 7, Tickle Street.
4–14, Silver Street.
52–70, Hardybutts.
6–12, Caroline Street.
71, Delph Street.
7–21, Driving Lane.
128, Hardybutts.
20, 22, 39, Wellington Street.
20, 22, Rodney Street.
47, James Street.

BOROUGH SURVEYOR'S DEPARTMENT.

The Borough Surveyor has kindly supplied me with the following particulars :—

	T.	C.	Q.
House refuse collected in Borough from January 1st to			
December 31st, 1909	18,665	19	0
Pail excreta removed in 1909	7,029	3	3
Midden and Ashpit refuse removed in 1909	11,727	14	3
Number of Pail Closets in Borough ..	7,859		
Number of Pails collected in 1909 ..	439,218		
Cost (including washing and distribution)	£2,198	18	6
Cost of collecting ashes during 1909	£2,370	4	10
Cost of collecting Midden and Ashpit refuse during 1909 ..	£1,300	9	5
Number of privy middens in Borough ..	1,741		
„ „ emptied, 1909 ..	23,939		
„ new houses erected in 1909 ..	204		
„ water closets in Borough ..	5,487		

SCAVENGING.

This department is under the control of the Sanitary Works Committee, and the disposal of sewage is in charge of the Sewage Farm Committee, the Medical Officer of Health being requested to attend when required.

Where a nuisance has arisen either from privies or pails, we have endeavoured to get them converted to the water-carriage system.

REPORT OF THE MEDICAL OFFICER OF HEALTH ON FILLED-UP LAND WHICH MAY EVENTUALLY BE USED FOR BUILDING LAND.

Health Office,

Wigan, December 16th, 1909.

Mr. CHAIRMAN AND GENTLEMEN,

I beg to report in accordance with the wishes of the Committee on the "tipping of refuse" in Harper Street, off, Darlington Street East. I inspected the place on December 13th, 1909, and found no nuisance arising therefrom.

I did see two heaps of objectionable street refuse, containing straw and horse manure, but this was not giving off any effluvia or anything objectionable. I also visited at the same time the tipping of refuse at the top end of Kirkless Street, there I didn't find any nuisance arising from refuse deposited.

I have as Medical Officer of Health a very strong objection to houses being built on filled up land, which is usually composed of wet ashes, paper, vegetable and animal matter; this will eventually give rise to decomposition and may cause injurious gases to penetrate the interior of houses, unless strict precautions are taken as regards the ground surface.

You have power in your Bye-laws, and also under the Public Health Amendment Act, 1890, to exercise precautions against this. (Section 25 (1) and (2), and Wigan Building Bye-laws 9 and 10, state:—

9.—A person who shall erect a new building shall not construct any foundation of such building upon any site which shall have been filled up with any material impregnated with foecal matter or impregnated with any animal or vegetable matter, or upon which any such matter may have been deposited, unless and until such matter shall have been properly removed, by excavation or otherwise, from such site.

10.—Every person who shall erect a new domestic building shall cause the whole ground surface or site of such building to be properly asphalted or covered with a layer of good cement, concrete, rammed solid at least six inches thick, where required by the Corporation on account of the unsatisfactory, unhealthy, or soft nature of the subsoil.

I am, Gentlemen,

Your obedient Servant,

WILLIAM BERRY,

Medical Officer of Health.

REPORT OF THE LADY HEALTH VISITOR (MISS ALLDRITT) TO THE MEDICAL OFFICER OF HEALTH ON WORK DONE FROM APRIL UNTIL DECEMBER 31st, 1909.

As my duties as Lady Health Visitor in this Borough, under the direction of the Medical Officer of Health only commenced in April, 1909, I am unable to compare the work of last year with that of previous years, so proceed to give a description of the work done during that time.

During April, May, and June my hours were employed in visiting the Midwives practising in this Borough, making thorough House-to-House inspection in the poorest parts of the town; visiting workshops and factories where females were employed; milkshops, making special enquiry into the sanitary condition of the premises where the milk was stored, with proper coverings to the vessels containing the milk &c., and any other miscellaneous visit which the Medical Officer of Health thought it desirable for me to make.

In June the voluntary notification of Births by the Midwives was adopted; since then my time has been fully occupied in visiting and revisiting these cases.

The majority of Midwives have been very good in sending in the notification within a day or two of the Birth, but there are a few, who, as the notification is not compulsory—often neglect notifying for two or three weeks after the confinement, consequently when I visit the mother is often out, and has sometimes removed from the District.

As a rule I visit about 10 days after the Birth when a Midwife only has been present, and about 14 days after the Birth if a Medical practitioner has also been present, and if the Medical Officer considers it a suitable home for visitation.

At each visit all particulars are obtained *re* the feeding and general health of the child, and I impress most strongly the undoubted advantage of natural feeding above all others. Many mothers having insufficient milk for the child, have commenced to feed entirely on the bottle, neglecting to give the breast at all, thinking the two milks will not agree, but as they now learn that the two milks do not of necessity clash—mixed feeding is becoming more general.

The boat-shaped bottle seems to predominate, although there are still a great number of tube bottles used, especially in the poorest districts, and when asked to get the boat bottle their excuse is they cannot afford one, but this difficulty has been remedied by suggesting to them to use a medicine bottle with an ordinary rubber teat fitted on to the end, which practically answers the purpose of the boat-shaped bottle.

A great deal of condensed milk is used, but when the mother learns that cow's milk, boiled, properly diluted and sweetened is the nearest approach to human milk, they are quite ready to give it a trial; and on making a second visit I have in many cases found cow's milk entirely adopted, but in some they persistently keep to the condensed milk.

Boiled bread and biscuits is considered quite a natural food for a child three weeks old in some cases, and as some of the mothers place implicit trust in these "foods" it is very difficult to persuade them to discontinue their use.

Soothing syrup is also occasionally given, but when hearing how injurious it is, there are few who persist in its use.

Dummy teats are very widely used all over the district, but where possible I find it best to get the dummy put on the fire before leaving the house.

The necessity of cleanliness, fresh air, and regularity is strongly impressed on the mother at every case visited.

NUMBER OF VISITS APRIL TO DECEMBER, 1910.

Births	..	..	..	..	..	941
Births—Re-Visits			..	..	..	371
Midwives	..	..	..	..	..	145
Workshops	..	..	..	..	..	280
House-to-House	..	..	..	..	..	627
Milkshops	..	..	..	..	..	90
Infectious Diseases			..	..	..	7
Diarrhœa Deaths			..	..	..	37
Special Visits	..	..	..	..	..	61
Miscellaneous	..	..	..	..	..	17
Nuisances Reported			..	..	..	104
						<hr/> 2,680 <hr/>



MIDWIVES ACT, 1902.

We have now 60 women on the Midwives' Register for the Borough. This year many have been visited at their own houses by Dr. J. F. Berry, M.B., Ch.B., St. And., L.R.C.P. and S., Ed., &c., and the majority by Miss Alldritt, the Lady Health Visitor. Both have presented reports to me, and where necessary, letters have been written to those who have not conformed to the Regulations of the Midwives Board. During the year there were 8 cases of Puerperal Fever notified and 5 deaths, against 12 cases and 8 deaths in 1908. There were 7 cases in which a Midwife had been in attendance; in each case she was suspended from carrying out her midwifery duties.

Many midwives have been summoned before me for negligence in carrying out the rules of the Midwives' Board.

During the year I have had the following reports sent in :—

60 Records of sending for Medical Help.
34 Notifications of Still-Births.
2 Notifications of Death of Child.

against in 1908 :

42 Records of sending for Medical Help.
4 Notifications of Death of Child.
26 Notifications of Still-Births.

against in 1907 :—

16 Records of sending for Medical Help.
2 Notifications of Death of Child.
18 Notifications of Still-Births.

against in 1906 :

13 Records of sending for Medical Help.
4 Notifications of Death of Child.
15 Notifications of Still-Births.

and in 1905 :

9 Records of sending for Medical Help.
5 Notifications of Still-Births.

COUNTY BOROUGH OF WIGAN.

Midwives on Register, year ending 31st December, 1909.

Name.	Registered No.
Atherton, Ann	4,607
Appleton, Mary	890
Ashton, Ellen	3,740
Archer, Annie M.	4,143
Alcock, Florence A.	17,693
Blatherwick, Jane	3,878
Barlow, Annie	12,602
Baxter, Mary E.	661
Banks, Jane	891
Bentham, Elizabeth	6,722
Bentham, Ellen	19,486
Bolton, Elizabeth	26,027
Booth, Maria	3,263
Cox, Jane	933
Cowley, Elizabeth	3,780
Cunliffe, Mary	19,073
Daniels, Ellen	9,585
Dutton, Harriet	10,507
Finch, Eliza	3,760
Finch, Alice	4,360
Fraser, Susannah	26,727
Grundy, Maria	3,643
Grocott, Harriet	5,241
Green, Sarah	13,239
Hall, Ann J.	10,630
Howarth, Mary E.	28,695
Holland, Annie A.	28,685
Halliwell, Ann H.	4,121
Humphries, Margaret	4,479
Holland, Elizabeth	3,784
Hoy, Louisa	19,889
Kynaston, Jane E.	9,942
Lyon, Sarah	596
Langshaw, Ann	3,621
Layland, Alice	5,276
McAllister, Isabel	23,614
McCann, Margaret	2,532
Melling, S. A.	25,128
Moss, Elizabeth	15,722
Patrick, Ann	6,335
Perkins, Margaret A.	4,145
Pilkington, Hannah	11,088
Priest, Catherine	17,057
Perry, Nancy	17,052
Scott, Jane I.	26,920
Townsend, Mary A.	21,212
Taylor, Ann	3,331
Thorpe, Millicent	4,146
Wilson, Dorothy	558
Wallwork, Mary	659
Worthington, Elizabeth	4,367
Walsh, Alice	4,346
Winstanley, Ann	3,574
Wilkinson, Mary J. G.	28,969

Residing outside, but practising in Wigan :—

Name.	Registered No.
Davies, Mary A.	2,780
Hill, Alice	3,766
Ellison, Mrs.	3,196
Green, Elizabeth	1,911
Knowles, Fanny	2,328
Moss, Margaret	4,398

NOTIFICATION OF BIRTHS ACT, 1907.

This Act has not been adopted, but probably will be during the ensuing year, application having been made to the Local Government Board. I subjoin table on Infantile Mortality :—

INFANTILE DEATH RATES, 1909.

Month.	Deaths, all Causes.	Births.	Rate per 1,000 Births.	Diarrhœa Deaths.	Rate per 1,000 Births.
January	46	280	164	—	—
February	44	249	176	1	4
March	50	242	206	1	4
April	35	232	150	—	—
May	42	272	154	—	—
June	33	240	137	2	8
July	35	290	120	3	10
August	34	216	157	13	60
September	43	190	226	17	89
October	47	247	190	4	16
November	34	223	152	—	—
December	43	180	238	2	11
	486	2,861	169	43	15

Rate per 1,000 Births for 12 months, 169.

Average for the last 10 years (1899–1908), 174.

EDUCATION ACT, 1902 AND 1904.

The Education Committee appointed a School Medical Officer (this officer being the Medical Officer of Health), an Assistant School Medical Officer, and a School Nurse.

The work commenced so far as the school inspection of children was concerned in January, 1909.

Schools have been closed for Measles as in previous years, no school closure taking place for any other infectious disease.

The water supply to the Elementary Schools has been ample and of good quality.

The report on the work done in the examination of school children, and also as to the state of the schools, is appended.



County Borough of Wigan.

EDUCATION DEPARTMENT.

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICERS,

FOR THE

Year Ended December 31st, 1909.

Approved by the Education Committee 23rd February, 1910.

WIGAN :

Thomas Wall and Sons Limited, Printers, "Observer" Office,
1910.

SCHOOL MEDICAL OFFICERS' REPORT.

*To the Chairman and Members of the Education Committee of the County
Borough of Wigan.*

Ladies and Gentlemen,

We beg to submit our first Annual Report on the Inspection of Schools and School Children for the year ended the 31st December, 1909.

The total number of Schools examined was 26. These comprised 58 Departments.

5,890 children were examined, consisting of 2,938 boys and 2,952 girls. The average length of time taken up by each examination was six minutes.

The Medical Inspection of Children was greatly facilitated by the tactful and efficient manner in which the duties of the School Nurse were carried out, while in many cases, the Managers and Teachers voluntarily offered valuable assistance.

About 60 per cent. of the parents attended the Schools during the examination of their children, and were apparently much interested in the proceedings.

Only two parents offered objection to the Medical Inspection of their children. In each case the examination was dispensed with.

In all cases where in our opinion Medical Treatment was required, a notice to that effect was handed or forwarded to the parents. 1,108 such notices were issued, and each case was subsequently visited by the School Nurse. In the majority of cases it was found that necessary medical treatment had been obtained.

It has been found necessary to issue 33 Notices requiring parents to cleanse their children within 24 hours. In all such cases at least two warning notices had been previously given, without effect. All such cases were followed up by the School Nurse. Of the 33 children referred to, 7 were removed from School and cleansed at the Cleansing Station. These cases are still under observation.

The School Buildings were found to be in a fairly satisfactory state of repair. Appended hereto are Reports on each of the Schools:—

PRESBYTERIAN SCHOOL.

Surroundings :—Street, cottage property.

Two playgrounds—both cindered. There are ash-tubs in the Infants' and Girls' playground. The conveniences are trough-water closets. The urinal in the Infants' yard is not satisfactory. The cloakroom is formed by a passage, and there is no drying apparatus. The School is heated by pipes and open fires. Three lavatory basins only are provided.

WESLEYAN SCHOOL.

Surroundings :—Street, St. John's R. C. School, and house property.

Playgrounds :—Two. Both are partly under the School itself. Both are flagged and are small in area, with drinking water supply in each yard.

The conveniences are trough-water closets and urinals.

The conveniences in the Boys' yard are not provided with doors.

There are three cloakrooms, small in area and somewhat dark.

There is no drying apparatus. The School is heated by hot-water pipes.

NATIONAL AND BLUE COAT SCHOOL.

Surroundings :—Streets, waste land, cottage property.

Playgrounds :—Three in number.

The Girls' playground is flagged and has a dry ashpit.

The Boys' playground is flagged.

The Infants' playground has one portion cindered and the other part flagged.

The conveniences consist of pail closets and urinals.

There are three cloakrooms with no drying apparatus.

Each cloakroom contains three lavatory basins.

The heating of the School is by hot-water pipes, fires, and stoves.

KITT GREEN SCHOOL.

This is an old two-roomed building.

Surroundings :—Street, waste land, cottage property.

The ventilation and lighting are fair.

The heating is by hot-water pipes.

There are two small cloakrooms, with no drying apparatus.

One of the cloakrooms contains two lavatory basins.

The conveniences are trough-water closets, urinals, and privy middens.

There are two playgrounds, each partly flagged and partly cindered.

MARSH GREEN SCHOOL.

Surroundings :—Waste land and streets.

The ventilation is fair, and the lighting poor.

The heating is by open fires, and is inadequate in the large room.

There are two lavatory basins in a recess off the main room.

The two playgrounds are cindered. In the Infants' yard there is an ashpit.

The conveniences consist of trough-water closets and urinal.

ST. MARK'S C. E. SCHOOL.

Surroundings :—Street and waste land.

Ventilation good, and lighting fairly good.

The heating is by fires and hot-water pipes.

There are two cloakrooms in the Infants' Department, one cloakroom in the Girls' Department, and two in the Boys' Department.

The Infants' cloakroom contains one lavatory basin, the Girls' three basins, and the Boys' five.

The conveniences consist of trough-water closets, privy middens, and urinals.

The two large playgrounds are both cindered.

PEMBERTON COLLIERY C. E. SCHOOL.

Surroundings :—Street, cottage property, fields.

The Boys' Department is an old building, some distance from the Girls' and Infants' Departments.

The ventilation and lighting are fair.

The heating is by open fires and a stove.

There are two lavatory basins in the cloakroom.

The Girls' and Infants' Departments are good, modern buildings.

Ventilation and lighting are good.

There are five lavatory basins in the Girls' Department, and three in the Infants' Department.

There is one cloakroom in each Department, with no drying apparatus.

The conveniences are wash-down closets, trough-water closets, and urinals.

There are three playgrounds, all cindered.

POOLSTOCK C. E. SCHOOL.

Surroundings :—Streets.

The ventilation and lighting are fair in the Mixed Department and good in the Infants' Department.

The heating is by open fires.

There are two cloakrooms, one with a large fire for heating and drying purposes in Infants' and Girls' cloakroom. There is no drying apparatus in the Boys' cloakroom.

There are two lavatory basins in each cloakroom.

The two somewhat small playgrounds are flagged.

The conveniences are pail closets and urinals.

SACRED HEART R. C. SCHOOL.

This is a small modern School, surrounded by waste land and street.

The ventilation is good, and the lighting also good.

The heating is by open fireplaces.

There are two cloakrooms, with no drying apparatus.

There are two lavatory basins in one cloakroom, and one lavatory basin in the other.

There are two large playgrounds, both cindered.

The conveniences are wash-down closets and urinals.

ST. ANDREW'S C. E. SCHOOL.

Surroundings :—Waste land and cottage property.

The ventilation is fairly good, and the lighting good.

The heating is by water-pipes and fires.

There are three cloakrooms, with no drying apparatus. There are three lavatory basins in the Infants' Department, three in the Girls' Department, and three in the Boys' Department.

There are two playgrounds, both cindered.

The conveniences are trough-water closets and urinals.

ST. CATHARINE'S C. E. SCHOOL.

Surroundings :—Street, and cottage property.

The lighting is fair, and the ventilation fairly good.

The heating is by hot-water pipes.

There are two inside wooden staircases, with hand rails.

The two cloakrooms contain a lavatory basin, two others are fixed in classroom.

The cloakrooms contain no drying apparatus.

There are two playgrounds, both flagged.

The conveniences are wash-down closets and urinals.

ST. CUTHBERT'S R. C. SCHOOL.

Surroundings :—Street, and house property.

The ventilation is good and the lighting good.

The heating is by hot-water pipes, fires, and stoves.

There are two small playgrounds, both flagged.

The conveniences are trough-water closets.

There are three cloakrooms. One large cloakroom contains an open fireplace.

There are two cloakrooms in the Mixed Department.

There are no lavatory basins in the Infants' Department, and five in the Mixed Department.

ST. GEORGE'S C. E. SCHOOL.

Surroundings :—Cottage property and waste land.

The ventilation is good, and the lighting good.

The heating is by hot-water pipes and open fires.

There are three large cloakrooms, with three lavatory basins in each.

There are two stone staircases to the upper floor, with hand rails.

The two playgrounds are cindered.

The conveniences are trough-water closets and urinals.

ST. GEORGE'S (MARYLEBONE) C. E. SCHOOL.

Surroundings :—Street and vacant land.

The ventilation of this small School is only fair.

The lighting is insufficient.

The heating is by hot-water pipes.

There are two small cloakrooms.

The lavatory basin is a movable enamelled tin basin.

There is one large playground, unpaved.

The conveniences are pail closets and a small urinal.

ST. JAMES'S WORSLEY MESNES C. E. SCHOOL.

Surroundings :—Street; cottage property, and waste land.

Ventilation good.

Lighting good.

The heating is by hot-water pipes and open fires.

The cloakrooms comprise two in the Infants' Department, and three in the Mixed Department.

There are six lavatory basins, four in the Infants' Department, and two in the Mixed Department.

The three large playgrounds are cindered.

The conveniences are trough-water closets and urinals.

There is an ashpit in the Girls' yard.

ST. JOHN'S C. E. SCHOOL.

Mixed Department.—Surroundings :—Cottage property, grave yard, and waste land.

The ventilation is good, and the lighting good.

The heating is by hot-water pipes.

There are two cloakrooms, with no drying apparatus. They contain eight lavatory basins.

The two large playgrounds are cindered.

The conveniences are trough-water closets and urinals.

Infants Department.—Surroundings :—Street, cottage property.

Ventilation fair.

Lighting fair.

The rooms are warmed by open fires.

There are two cloakrooms (small), with no drying apparatus.

The stone staircase is narrow, with a hand rail on one part.

The two small playgrounds are flagged.

The conveniences are trough-water closets and urinals.

ST. JOHN'S R. C. SCHOOL.

Boys' Department.—Surroundings :—Street, house property, and School.

Ventilation fairly good.

Lighting very good.

The heating is by hot-water pipes.

There is one stone staircase, with no hand rail.

The one large cloakroom contains no drying apparatus. It has three lavatory basins.

The small playground is flagged.

The conveniences are trough-water closets and urinals.

Girls' and Infants' Departments.—Modern and well-arranged building.

The ventilation is good, and the lighting good.

The School is heated by hot-water pipes and open fires.

There are two good cloakrooms, with one lavatory basin in each.

There is no drying apparatus.

The one wide stone staircase has no hand rail.

The fairly large playground is flagged.

The conveniences are trough-water closets and urinals.

ST. JOSEPH'S R. C. SCHOOL

Surroundings :—Street, and cottage property.

The ventilation is fair, and the lighting fair.

The heating is by hot-water pipes.

There is a small cloakroom in each Department, with no drying apparatus.

The two small playgrounds are flagged.

The conveniences are trough-water closets and urinals.

There are five lavatory basins, two in the Infants' Department, and three in the Boys' Department.

ST. MARY'S R. C. SCHOOL.

Surroundings :—Church, and open ground.

The ventilation is good, and the lighting good.

The School is heated by hot-water pipes and open fires.

There are five lavatory basins, two in the Boys' Department, two in the Girls' Department, and one in the Infants' Department.

The two somewhat small playgrounds are flagged.

The conveniences are wash-down closets and urinals.

ST. MICHAEL'S C. E. SCHOOL.

Surroundings :—Street, waste land, and cottage property.

The ventilation is good, and the lighting good.

The heating is by hot-water pipes and open fires.

There are four cloakrooms, two in the Mixed Department, and two in the Infants' Department. They contain six lavatory basins.

The two large playgrounds are cindered.

The conveniences are pail closets and urinals.

ST. PATRICK'S R. C. SCHOOL.

Boys' and Juniors' Departments.—Surroundings :—Street, and cottage property.

The ventilation and lighting are good.

The heating is by hot-water pipes, open fires, and stoves.

There are three cloakrooms, one in the Boys' Department, and two small rooms for Juniors.

There are four lavatory basins, two in Boys' cloakroom and one in each of the Juniors.

There is one large playground, flagged.

The conveniences are trough-water closets and urinals.

Girls' and Infants' Departments.—Surroundings :—Street, and cottage property.

The ventilation is good, and the lighting fair.

The heating is by open fires.

There are two cloakrooms with no drying apparatus.

They contain six lavatory basins.

There are two small flagged playgrounds.

The conveniences are trough-water closets, pail closets and urinals.

There are two staircases, stone, with hand rails.

ST. PAUL'S C. E. SCHOOL.

Surroundings :—Cottage property, waste land and street.

The ventilation and lighting are fairly good.

The heating is by hot-water pipes and open fires.

There are four small cloakrooms with no drying apparatus.

The two stone staircases have no hand rails.

The cloakrooms each contain a lavatory basin.

There are two playgrounds, one cindered and the other half cindered and half flagged.

The conveniences are privy middens, wash-down closets, and urinals.

There is one ashpit in the Boys' yard.

ST. THOMAS'S CAROLINE STREET C. E. SCHOOL.

Surroundings :—Street, cottage property and church.

The ventilation is fair, lighting fairly good, and the heating is by hot-water pipes.

There are three cloakrooms with no drying apparatus.

There are four lavatory basins in the Mixed Department, and one in the Infants' Department.

The two wooden staircases have no hand rails.

The two small playgrounds are flagged.

The conveniences are pail closets and urinals.

ST. THOMAS'S CLAYTON STREET C. E. SCHOOL.

Surroundings :—Street and cottage property.

The ventilation is fair, the lighting fair, and the heating is by hot water pipes and open fires.

The three cloakrooms have no drying apparatus.

There are four lavatory basins, two in the Infants' Department, and two in the Mixed Department.

The two small playgrounds are flagged.

The conveniences are trough-water closets and urinals.

There are two stone staircases.

WARRINGTON LANE COUNCIL SCHOOL.

Surroundings :—Streets and railway.

The ventilation is good, the lighting fair in the Mixed Department, and good in the Infants' Department.

The School is heated by hot-water pipes and open fires.

There are three cloakrooms with no drying apparatus, containing two lavatory basins in the Infants' Department and three in the Mixed Department.

One of the playgrounds is cindered and the other flagged.

The conveniences are trough-water closets and urinals.

ST. CATHARINE'S WHELLEY BRANCH C. E. SCHOOL.

Surroundings :—Street, waste land and cottage property.

The ventilation is good, the lighting fairly good, and the heating is by hot-water pipes and open fires.

There are two cloakrooms with no drying apparatus.

There are six lavatory basins in the Infants' and Girls' Departments, and two in the Boys' Department.

The conveniences are wash-down closets and urinals.

One of the two playgrounds is cindered and the other flagged.
There are open ash tubs in the Boys' yard.

The ventilation of some schools leaves much to be desired.

The lighting of some to the schools is insufficient, especially the artificial lighting.

The heating in most cases is satisfactory. Hot-water pipes, radiators, open fires, and coke stoves are used.

The water supply is sufficient in most schools, in one or two insufficient. Only cold water is supplied for washing purposes in the cloakrooms.

The sanitary arrangements are varied—water closets, trough-water closets, pails and privy middens. In one or two school yards there is an ashpit or ash tub. The flushing of the water closets is not sufficiently frequent from a sanitary point of view. The pail closets are objectionable and the privy middens are decidedly objectionable.

Children in the following Schools have been medically inspected during the year :—

<i>School.</i>	<i>Department.</i>	<i>No. of Visits.</i>
Presbyterian	Infants'	2
„	Mixed	6
Wesleyan	Infants'	4
„	Mixed	2
National and Blue Coat ..	Infants'	6
„	Boys'	7
„	Girls'	9
Kitt Green	Mixed	1
Marsh Green	Mixed	3
St. Mark's C. E.	Infants'	9
„	Girls'	5
„	Boys'	4
Pemberton Colliery C. E. ..	Infants'	4
„	Girls'	5
„	Boys'	4
Poolstock C. E.	Infants'	3
„	Mixed	4
Sacred Heart R. C.	Mixed	4
St. Andrew's C. E.	Infants'	6
„	Mixed	8
St. Catharine's C. E.	Infants'	3
„	Girls'	4
„	Boys'	5
St. Cuthbert's R. C.	Infants'	3
„	Mixed	4
St. George's C. E.	Infants'	7
„	Mixed	9
St. George's Marylebone C. E.	Mixed	1
St. James's Worsley Mesnes C.E.	Infants'	2
„	Mixed	4

<i>School.</i>	<i>Department.</i>	<i>No. of Visits.</i>
St. John's C. E.	Infants'	4
"	Mixed	5
St. Joseph's R. C.	Infants'	4
"	Girls'	6
"	Boys'	6
St. Mary's R. C.	Infants'	2
"	Girls'	3
"	Boys'	3
St. Michael's C. E.	Infants'	3
"	Mixed	9
St. Patrick's R. C.	Infants'	6
"	Juniors'	7
"	Girls'	7
"	Boys'	7
St. Paul's C. E.	Infants'	3
"	Girls'	5
"	Boys'	5
St. Thomas's Caroline Street	Infants'	4
"	Mixed	14
St. Thomas's Clayton Street	Infants'	5
"	Mixed	5
Warrington Lane Council	Infants'	3
"	Mixed	8
St. Catharine's Whelley Branch		
C. E.	Infants'	4
"	Mixed	4

The children selected for examination were:—At entrance, before leaving, and special cases.

10 children were referred for subsequent and further examination.

Number of Children Examined.

Ages	5	6	7	8	9	10	11	12	13	14	Total.
Males	638	308	397	462	224	159	134	394	217	5	2938
Females ...	654	289	379	470	271	159	152	372	204	2	2952
Grand Total										...	5890

Table showing the average height in inches and centimetres of children examined:—

Ages	5	6	7	8	9	10	11	12	13	14
<i>Males :—</i>										
Inches	40.53	42.39	44.69	45.91	47.74	50.11	51.27	53.39	54.06	53.9
Centimetres.....	102.95	107.68	113.52	116.61	121.28	127.28	130.21	135.6	137.3	136.9
<i>Females :—</i>										
Inches	40.08	42.01	45.49	46.21	47.31	48.98	51.50	56.75	55.75	56.0
Centimetres.....	101.80	106.70	115.52	117.40	120.2	124.41	130.8	144.1	141.6	142.25

Table showing the average weight in pounds and kilogrammes of the children examined :—

Ages	5	6	7	8	9	10	11	12	13	14
<i>Males :—</i>										
Pounds.....	39.35	43.48	44.70	50.47	51.89	59.76	64.67	71.38	68.15	70.3
Kilogrammes	17.93	19.72	20.28	22.89	24.90	27.10	29.33	32.38	30.91	31.89
<i>Females :—</i>										
Pounds.....	38.52	41.49	45.99	49.50	52.58	56.67	63.01	71.93	78.09	68.07
Kilogrammes	17.47	18.81	20.86	22.46	23.86	25.70	28.58	32.62	35.43	30.86

The number of parents who were advised to obtain treatment was 1,108, the classification of which is as follows :—

Teeth. 77	Tonsils and Adenoids. 196	Eyes (External). 196	Vision. 489
Ear Disease. 63	Hearing. 120	Heart. 2	Lungs. 39
Nose and Throat. 34	Skin. 55	Submax. and Cervical Glands. 6	
Other Disease. 13		Infectious Disease. 5	

Table showing number of children with bad clothing.

Ages	5	6	7	8	9	10	11	12	13	14
Poor	106	82	119	165	93	63	54	115	62	2
Bad	13	4	3	8	6	6	4	6	2	0

Table showing number of children with indifferent nutrition.

Ages.....	5	6	7	8	9	10	11	12	13	14
Poor.....	20	21	38	30	18	10	11	21	15	0

Table showing number of children with dirty heads.

Ages	5	6	7	8	9	10	11	12	13	14
Dirty heads	229	146	179	253	157	102	42	188	89	0

Table showing number of children with defective sight.

Ages	5	6	7	8	9	10	11	12	13	14
Defective Sight	0	0	62	117	84	83	75	88	56	1

Table showing number of children with one or more decayed teeth.

Ages	5	6	7	8	9	10	11	12	13	14
Decayed Teeth	983	457	710	862	461	288	250	614	339	5

Table showing number of children with enlarged tonsils, &c.

Ages	5	6	7	8	9	10	11	12	13	14
Tonsils and Adenoids	47	72	118	128	73	25	14	49	34	1
Cervical Glands.....	8	4	3	7	3	1	6	11	1	1

Table showing number of children with defective hearing.

Ages	5	6	7	8	9	10	11	12	13	14
Medium	16	9	16	27	28	38	29	27	8	0
Bad	1	0	0	0	1	3	2	1	0	0

Number of defective children not included in the above tables.

Cleft Palates, 5 ; Deformities, 60 ; Cretins, 2 ; Deaf and Dumb, 1 ; Dumb, 1 ; Imbecile, 1 ; Mentally Deficient, 8.

We beg to remain, Ladies and Gentlemen,

Your obedient Servants,

WM. BERRY,

Superintendent School Medical Officer.

C. BERRY,

Assistant School Medical Officer.

23rd February, 1910.

ANNUAL REPORT

OF

THE PUBLIC ANALYST

FOR THE YEAR 1909.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I beg to report herewith a summary of the work executed during the year ending December 31st, 1909.

The major part of my work is concerned with the carrying out of the provisions of the Sale of Food and Drugs Acts, and this part of my duties will be dealt with first.

170 samples of food have been submitted for analysis, and are shown in the following table :—

	Milk.	Butter.	Con- densed Milk.	Sweets.	Potted Shrimps.	Total.
Total number of samples analysed	122	32	8	7	1	170
Total number adul- terated	4	2	Nil.	Nil.	1	7
Percentage of adul- teration	3·3	6·2	—	—	100	4·1

MILK.

Taking seasonal variations into consideration, the general milk supply has been very satisfactory. Adulteration was only serious in one case, in which there was 10 % of extraneous water. Deficiency in fat to the extent of 2½ % and 5 %, and added water to the extent of 2 %, account for the three remaining samples. There was a relatively high percentage of the milks of very good quality—a fat content of 3·7 % and upwards. It is very satisfactory, too, to record the

total absence of preservatives—boric acid, formalin, &c. Another matter to which I have given attention is the question of dirt in the milk, but in no case was there an excessive amount on centrifugalising. One has in mind Continental standards, but it must be remembered that quantitative values are of little importance as compared with the nature of the deposit. More will be heard of this matter in the near future, and more prominence given to the results of special pathological investigations.

BUTTER.

Two samples were adulterated with, respectively, 88 and 89 % of fat foreign to butter fat. Both contained a considerable quantity of cocoanut-olein, and had a more bland and pleasanter taste than the usual type of margarine. In a few cases boron compounds were found, but calculating the preservative present as boric acid, there was well under the quantity allowed by the Act, viz., 35 grains per pound.

CONDENSED MILK.

Analyses were carried out with the object of showing the quantity of milk fat present. One sample was shown to be a thrice-condensed milk, and contained upwards of 10 % of fat. The remaining samples were made from machine-skimmed milk, and contained only traces of fat. In face of the plain statement on the label, no fraud is apparent, but there can be no doubt that such liquids—partaking more of the nature of syrups—are far from ideal foods, particularly for the young and invalids.

SWEETS.

Assorted samples were taken and examined particularly for arsenic. Exceedingly small quantities were found, in no case exceeding $\frac{1}{1000}$ th of a grain per pound calculated as arsenious acid. These traces are not significant.

The colouring matters employed were coal tar products, &c.—Auramine, rhodamine, and erythrosin. To each hundredweight of sweets, about 1 ounce of a 5 % alcoholic (or aqueous) solution is added, so that only very little of the original dye-stuff is found in the finished article. More than this is unnecessary since the tinctorial power is very great. No harm can possibly result from a generous consumption of this type of confection.

Only one sample of potted shrimps was analysed, and this contained an excessive quantity of boron compounds (calculated as boric acid, equal to 85 grains per pound). This quantity, which expressed in another way, means 1.21 % on the original shrimps, is far in excess of what is necessary, and should be strongly discouraged.

WATER SUPPLY.

Monthly analyses have been regularly made and formally reported. The samples have been taken personally, and every care has been given to ensure thorough cleanliness so that the results obtained might be taken as absolute. Many samples were secured from either the Health Offices, King Street West, or the Police Station, and others were taken in Fleming's Yard, Hallgate, in Wigan Lane, Ormskirk Road, Newtown, and Dorning Street. Much prominence is given to the number recorded under "Albuminoid Ammonia" as indicative of organic contamination. The highest figure obtained was in February, viz., .115 part per million, and the lowest was in May, when it had dropped to .045. The former figure, taken in conjunction with the remaining analytical data, is not serious, and was probably due to organic matter of vegetable origin. The nitric nitrogen (recorded under Nitrates) is not very variable, and shows that only original traces of nitrogenous organic matter has undergone a satisfactory oxidation. The complete absence of Nitrites further shows stability. Hardness—of both types—vary according to circumstances. The highest figure for Total or Hardness before boiling was in the July sample (Newtown), 12.5°, 90 % of which was due to carbonates of lime and magnesia. The lowest figure was observed in October, viz., 6.5°, hardness after boiling being 3.5°.

Taken all round, the Corporation Water Supply is of excellent quality, and of fairly regular composition.

GAS SUPPLY.

The average illuminating power of six monthly tests expressed in sperm candles was 18.26.

The gas was free from any trace of sulphuretted hydrogen.

FERTILISERS AND FEEDING STUFFS.

21 samples of feeding stuffs were examined during the year, one of which (an oil-cake meal) was unsatisfactory. All these were informal samples.

In conclusion, I beg to record my appreciation of the uniform kindness and help received from the Medical Officer of Health, the Chief Inspector, and the Staff generally of the Health Department.

I have the honour to remain, Gentlemen,

Yours obediently.

S. E. MELLING.

Burning Dirt Heap

AT

Goose Green.



REPORT

OF

BOROUGH ANALYST

(MR. S. ERNEST MELLING).

DECEMBER, 1909.

WIGAN :

THOS. WALL AND SONS LIMITED, PRINTERS, "OBSERVER" OFFICE, WALLGATE.



REPORT.



The Cliff,

Higher Broughton,

Manchester,

December 15th, 1909.

To the Chairman and Members of the Health Committee.

BURNING DIRT HEAP AT GOOSE GREEN.

Gentlemen,

Since my initial report to you on July 16th, 1908, upon the air in connection with the above, I have paid two visits to the district on the following dates, viz., July 13th, 1909, and November 12th, 1909.

The former date was selected as typical of a dull and close summer day, and was, moreover, favourable for taking samples owing to a slight breeze blowing the fumes in the direction of the dwelling-houses in Clapgate Lane.

Samples of air were taken :—

- 1.—In the garden of No. 20, Clapgate Lane at 3 10 p.m.
- 2.—Near the base of the dirt heap at 3 30 p.m.
- 3.—Half-way up the heap on the far side from Clapgate Lane, at 3-45 p.m.; and during the afternoon.
- 4.—A check sample was taken on the roof of the Health Office, Wigan.

Carbonic acid was estimated in each of these samples with the following results :—

1.—4.1	} Parts per 10,000 parts of air.
2.—4.7	
3.—7.2	
4.—5.06	

Excepting No. 3, there appears to be no great excess of carbonic acid, and the sample from King Street West is even worse than the one from near the base of the dirt heap. Fortunately, there are on record many instances of the determination of this gas, in, and about, industrial centres. Take Sheffield for example. Investigations have shown varying amounts as the following table proves :—

Locality.	Weather conditions.	Number of experiments.	In parts per 10,000.		
			Average.	Mini-mum.	Maxi-mum.
Suburbs.	Fog	7	3.94	2.16	5.14
"	No fog	135	3.24		
"	Snow	32	3.58		
"	No Snow	110	3.24		
"	Rain	—	3.12		
"	Fine	—	3.14		
Centre of town	—	21	3.85	2.80	6.22

Under exceptional circumstances, the carbonic acid content, as pointed out in my report of July 16th, 1908, may rise to as much as 25 or more parts per 10,000, but the above figures may be taken as normal for any manufacturing town.

Physiological experiments have shown that an atmosphere charged with 30 per cent. of carbonic acid causes rapid death; a concentration of about 60—80 volumes per thousand causes illness and danger to life in half to one hour; from 40—60 volumes per thousand has no serious effect in half to one hour, and 20—30 volumes per thousand gives only slight symptoms after several hours. In regard to carbonic acid, therefore, the analyses do not suggest any definite pollution; it has no bearing whatever on the smell (which on this occasion was very bad) and need not be considered further.

I made a careful examination of the vegetation, particularly in the field of a local farmer where the clover showed signs of a bleaching action. The leaves of oats were similarly affected, though the ears were apparently healthy. The kitchen-garden of another resident had suffered even more damage, and in this respect the conditions now obtaining are far worse than on the occasion of my last visit. Specimens were collected, and sulphuric acid (in a state of combination) was found in relatively large quantities. Now the original gaseous impurity, sulphurous acid (which is readily oxidised to sulphuric acid) may produce injury to vegetation by, either causing a diminution in the percentage of oxygen present, or by a direct toxic influence. The action in the case of sulphuric acid is undoubtedly cumulative, the acid continuously parting with and acquiring water. In warm weather, particularly, a gradual but persistent caustic effect is produced. Sulphurous acid acts in a rather different manner, and is mostly injurious to herbaceous plants. It may either inhibit the natural growth of the plant by gaining access to the protoplasm through the intercellular passages, or by a direct toxic action. In the case of either acid, it would appear to be a matter of extreme difficulty to demonstrate the presence of such, unless a very much greater volume of air was selected under the most advantageous conditions for this purpose. In other words, the nuisance will be aggravated in ratio to the state of the weather, direction of wind, &c.

Accordingly I went again to Clapgate Lane on November 12th to examine the air specifically for sulphurous acid. There was a strong breeze and a slight but persistent drizzle. The fumes from the dirt heap were most objectionable, and, as these were being driven in the direction of Clapgate Lane, I selected a position in the field adjoining the lane, and a large volume of air was aspirated, through suitable reagents, continuously for $3\frac{1}{2}$ hours. The dirt heap is about 180 yards distant from this place, and the dwelling houses some 60 yards away. Nearly forty litres of air were absorbed and yielded the following result:—

Sulphuric acid (anhydrous), 30 volumes per million volumes of air.

Numerous experiments in London, Manchester and Liverpool some years ago gave:—

Volumes of Sulphuric acid per Million Volumes of air.

In clear weather	..	..	0.1 to 0.5 ;
Slight fog	..	..	2 to 5 or more ;
Dense fog	..	..	10 to 20 ;
Maximum in black fog	..		38.1 (at St. Bartholomew's Hospital).

Although the sulphurous acid, arising very largely from the combustion of sulphur containing material on the dirt heap, is here shown to be in excess of the amounts recorded under "Dense fog" the conditions are hardly comparable. There is nothing like the same amount of co-existing dirt and "heaviness" experienced during foggy weather, and, however disagreeable the smell was, one felt no strain on the respiratory organs during or after the visit. It is impossible to say what quantity of sulphuric acid is being deposited in the neighbourhood. It will doubtless be intermittent and dependent upon many factors. A Manchester fog, lasting three days, for instance, has been known to deposit $1\frac{1}{2}$ cwts. of sulphuric acid per square mile of surface, and this in by no means the worst district. Seven or eight per cent. of sulphuric acid, mostly combined, has also been found in the deposit on *Ancuba* leaves which have been distinctly acid to the taste.

Apart altogether from the local nuisance which is limited more or less to a definite area, I have attempted to compare the *general* conditions of atmospheric impurity in this district and other parts of Wigan, by analyses (as complete as possible) of rain water collected under the strictest conditions as to cleanliness, &c. Whatever gaseous or solid product is contributed to the atmosphere in the domestic and industrial life of the community, will, to a greater or less extent, be washed out by, and become capable of demonstration in, the rain. Condensation of moisture is a very complete process for removing all kinds of impurities. Floating particles are free surfaces and become weighted by the moisture they condense and tend to sink ; the gaseous impurities being dissolved and carried down by the moisture present. So long as the collection of rain samples takes place simultaneously and is spread over a considerable period, the results should be comparable and conclusive. Three districts were selected for the collection of samples, which, thanks to careful supervision throughout, may be regarded as authentic.

- 1.—The grounds of the Pemberton Sanatorium.
- 2.—The area at the Health Office, King Street West.
- 3.—The grounds of the Sanatorium at Whelley.

The period of sampling covered 15 days from March 17th, 1909, to the end of the month. The samples were then analysed without further delay. A fourth sample was taken on the occasion of my last visit to Goose Green (12th prox.) from a rain tub supplying cottages in Clapgate Lane and, although not comparable with the others, the results are interesting and may be included in the following table:—

All results expressed in Grains per Gallon.

		1	2	3	Sample from rain-tub in Clapgate Lane.
Matters in Solution.	Total solid matter at 100° C.	3.920	24.850	4.900	12.00
	Non-volatile solids ..	2.310	13.160	3.115	8.20
	Loss on ignition ..	1.610	11.690	1.785	3.80
	Chlorine (in chlorides)	.300	.350	.350	1.80
	Silica .. .. .	.455	6.055	.595	.15
	Iron and alumina ..	.140	1.435	.175	.20
	Lime .. .. .	.100	.832	.258	1.01
	Magnesia .. ..	.088	.176	.101	Traces.
Matters in Suspension.	Sulphuric acid ..	.556	1.200	.676	4.38
	Total solid matter at 100° C.	3.355	32.950	2.100	Not a sufficient quantity at disposal
	Non-volatile solids ..	1.613	16.380	1.000	
	Loss on ignition ..	1.742	16.570	1.100	
	Silica	1.130	10.960	.575	
	Iron and alumina ..	.255	4.820	.350	
	Lime	Slight trace	Traces	Slight trace	
	Magnesia	Trace	Heavy traces	Trace	
In Suspension and Solution.	Free ammonia ..	0.180	0.030	0.410	0.230
	Albuminoid ammonia	0.210	0.820	0.130	0.765
	Nitrites	Nil.	Nil	Slight trace	Traces

Broadly speaking the air in the districts represented by Nos. 1 and 3 samples are equally contaminated and are no worse than could be expected. A slight excess of matters in solution at Whelley is counterbalanced at the Pemberton Sanatorium by an excess of suspended matter. There is rather less sulphuric acid in the air of Pemberton, much less "free and saline" ammonia, but over half as much again of "Albuminoid ammonia," which is indicative of complex animal organic matter. The air in the King Street West area is altogether different, and is heavily charged with floating matters (Vide suspended matters) half mineral, half organic in character—the latter being largely soot. Practically, double the quantity of sulphur compounds, forming sulphuric acid, is found in this, as against the air in either Whelley or Pemberton. Then, there is an excessive quantity of grit (silica) both in suspension and solution, and ten times more iron and alumina than at Pemberton. These conditions, of course, are mainly due to the heavy railway traffic, and, within a radius of, say 350 yards of either railway station, we have probably the greatest contamination in the Borough.

Without laying too much stress on the rain water sample of the 12th ult. from the tub supply in Clapgate Lane, it is significant that though the matters in solution are only half that of the No. 2 sample, the combined sulphuric acid is nearly four times greater, the total lime is also heavier and the chlorine five times as much. The air hereabouts, therefore, contains very much larger quantities of sulphurous acid, which becomes oxidised and fixed by the different bases present. This water has a neutral reaction and, in appearance, is cleaner than any of the three foregoing samples.

In summing up, it must be left to the Medical Officer to say whether sulphurous acid in the air giving rise to such quantities of sulphuric acid as estimated above, is likely to act prejudicially on the health of those living in the immediate district, having in mind the general climatic conditions and the constant variation in the amount of such deleterious compounds present.

I am, Gentlemen,

Your obedient Servant,

S. ERNEST MELLING.

County Borough of Wigan.



ANNUAL REPORT

OF THE

Chief Sanitary Inspector.

1909.



WIGAN:

THOS. WALL AND SONS LTD., PRINTERS, "OBSERVER" OFFICE,

1910,

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Annual Report of the Chief Sanitary Inspector,

1909.

HEALTH DEPARTMENT,

KING STREET WEST,

FEBRUARY, 1910.

To the Chairman and Members of the Health Committee.

SIR AND GENTLEMEN,

I have the honour to submit to you my Nineteenth Annual Report of the work carried out by the staff of the Department.

During the past year the work of the officials has been carried out in a very satisfactory manner, their zeal and tact has caused very little friction to the people of the town, and reflects the greatest of credit on them, and has been the means of the different nuisances and complaints being remedied in much less time than usual.

The following is a summary of the work done and a description of the nuisances dealt with :—

Houses and Premises Inspected and Visited (<i>re</i>	
Nuisances and Complaints)	7,185
Nuisances Discovered	1,407
„ abated	1,106
Notices Issued (Preliminary)	545
„ (Formal)	690
Letters written <i>re</i> Nuisances	104
Re-Inspections made (about)	3,517
Other Visits made	599
No. of Visits to Premises, testing of Drainage ..	155
Nuisances remaining on Books, December 31st, 1909	265

DESCRIPTION OF NUISANCES DEALT WITH.

Defective Drainage	63
Choked Drainage	130
Defective and Foul Gullies	27
Gullies Requiring Grids	27
Defective Slopstones	3
Want of Slopstones and Pipes	11
Sink Waste Pipes Connected to Drains	1
Bath and Lavatory Waste Pipes Connected to Drains	3
Bath and Lavatory Waste Pipes Defective	1
Soil Pipes or Connections Defective	9
Defective or Choked Water Closets	22
Defective or Choked Sink Waste Pipes	81
Soil Pipes insufficiently ventilated or unventilated	1
Defective ventilating shafts	2
„ water supply to Closets	1
Defective Condition of Closets (Roof, Walls, Door, Seat, or Floor)	114
Want of Doors to Closet	10
Want of Doors to Ashhouse	7
Defective Condition of Ashhouses (Roof, Walls, Door, or Floor)	45
Defective or Choked Waste Water Closets	33
Want of Ashtub Covers	2
Want of Ashtubs	2
Foul and Defective Privies and Ashpits	25
Workshops insufficiently ventilated	1
Downspouts connected to drains	5
Defective W.C. Cisterns	11
Insufficient Closet Accommodation to Houses or Workshops	15
Defective Spouts (Eave or Down)	131
Want of Spouting to Premises;	4
Defective Roofs	52
Defective Yard Surface Round Gully	41
Defective Flagging or Paving	46
Unpaved Yards and Passages	5
Houses without Proper Drainage	11
Houses Overcrowded and Keeping of Lodgers	44
Houses and Premises Filthy	17
Houses Requiring Limewashing	11
Houses with Filthy Closets	9
Houses with Filthy Yards and Entries	14
Houses with Damp or Defective Walls	12
Houses without Proper or Through Ventilation (Back-to-Back Houses)	14
Bakehouses Requiring Limewashing	2
Defective Middensteads	3
Want of Middensteads	4
Accumulations of Manure	12
Accumulations of Water	6
Accumulations of Rubbish	15

Keeping of Animals	..	..	..	..	..	70
Smoke Nuisances	..	..	..	..	..	2
Insanitary Slaughter-Houses	..	..	..	..	..	4
Keeping a Common Lodging House Unregistered	1
Insufficient Ventilation to Closets, Factory, or Work-shop	2
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COMMON LODGING HOUSES AND HOUSES “LET-IN-LODGINGS.”

During the past year the Common Lodging Houses have been regularly and systematically visited by Mr. Bishop and myself, and at different periods visits have also been made at night time. Some of the houses have had surprise visits paid by members of the Council, who have been very well satisfied at the manner in which houses (adapted) have been conducted. These adapted houses have in the past required a lot of looking after, but I am pleased to say they now compare very favourably indeed with the houses of any other town.

During the past year we have had another very good house added to the register, and I feel certain that the ordinary occupants of the Common Lodging Houses are well catered for in this town.

COMMON LODGING HOUSES.

No. of Common Lodging Houses in the Borough	..	20
„ Lodgers Allowed Nightly	.. ..	918
„ Visits by Day	.. ..	2,224
„ „ Night	.. ..	32
„ Lodgers reported as being received (per re- turns)	.. ..	222,563
„ Letters sent out	.. ..	13
„ Houses “Let-in-Lodgings” on Register	..	33
„ Visits by Day	.. ..	833

COMMON LODGING HOUSES.

No. on Register.	House.
1	2 and 4, John Street.
2	“Brown Cow,” Queen Street.
3	23, 25, Hardybutts.
4	46, Queen Street.
5	1, 3, 5, Union Street.
6	16, Hardybutts.
7	87, 89, 91, Millgate.

No. on Register.				House.
8	..	..	..	1, Hardybutts.
9	..	..	..	14, Scholes.
10	..	..	..	"The Mint," Scholes.
12	..	..	..	7, Wiend.
13	..	..	..	1, Swift's Yard, Millgate.
14	..	..	..	7, Hardybutts.
15	..	..	..	32, Hardybutts.
24	..	..	..	28, Wiend.
34	..	..	..	27, Hallgate.
35	..	..	..	19, Warrington Lane.
36	..	..	..	1, 3, 5, 7, 9, Scholes.
37	..	..	..	7, 9, Union Street.
38	..	..	..	36, 38, Hardybutts.

SLAUGHTER-HOUSES.

During the year the registered slaughter-houses in the borough have been regularly visited, and the food killed or deposited there inspected carefully.

Surprise visits have also been made at unusual hours of the evening, but nothing wrong has been discovered.

The question of an Abattoir has been dropped for the present, and this necessarily entails extra work on the staff in inspecting carcasses by request of the butchers. Taken generally the killing places are kept clean, but difficulty is often had in getting rid of the manure and other offal from the premises. The butchers try, I believe, to keep their premises so that as little objection can be taken to them as possible.

During the past year one slaughter-house has been re-built on proper sanitary conditions.

The subjoined statistics show the work that has been done during 1909.

SLAUGHTER-HOUSES AND MARKETS, &c.

No. of Slaughter-Houses in Borough	..	..	..	26
„ Offensive Trade Premises in Borough	.	..	..	8
„ Visits to Slaughter-Houses	..	..	..	883
„ „ Offensive Trade Premises	..	..	..	32
„ „ Markets..	..	..	..	345
„ Letters sent out	..	..	..	4
„ Condemned Food Certificates Given	..	..	..	104

SLAUGHTER-HOUSES.

Behind 8, Darlington Street.
 Behind 60, Darlington Street.
 Upper Morris Street.
 Rigby's Buildings, Scholes.
 Behind 124, Scholes.
 Wiend.
 Water Street.
 Behind 75, Wigan Lane.
 Bottom Croft.
 Shaw's Yard, Hallgate.
 Clayton Street.
 Hilton's Yard, Scholes.
 Mill Yard, Scholes.
 Behind 53, Birkett Bank.
 Altham's Yard, Standishgate.
 Behind 133, Standishgate.
 122, Scholes.
 132a, Ormskirk Road.
 Walthew House Farm.
 274, Billinge Road.
 808, Ormskirk Road.
 Brickcroft, Lamberhead Green.
 841, Ormskirk Road.
 Smithy Brook, Goose Green.
 270, Warrington Road.
 Sayer's Yard, Scholes.

OFFENSIVE TRADE PREMISES.

Millgate.
 Church Street.
 Crompton Street.
 Hallgate.
 Watmough's Yard, Scholes.
 Harrison Meadows (2).
 Jackson's Yard, Scholes.

Number of Beasts that have been inspected by request during 1909 :—

No. of Beasts	Passed	..	..	..	..	..	234 $\frac{1}{2}$
„	Condemned	..	..	..	..	..	6 $\frac{1}{2}$

FOOD CONDEMNED, 1909.

January.	1, Beast, 1 Box of Fish, 3 Boxes of Pigs' Plucks.
February.	1 Hind-quarter of Beef, 2 Boxes of Fish.
March.	2 Fore-quarters of Beef, 1 Box of Fish.
April.	2 Fore-quarters of Beef, 41 Rabbits, 35 Boxes of Fish, 1 Bag of Mussels.
May.	8 Bags of Yeast, 4 Boxes of Fish, 41 Rabbits, 13 Kippers.
June.	14 Boxes of Fish, 2 Barrels of Fish, 1 Bag of Oysters, 1 Box Frozen Kidneys, 5 Frozen Livers, 1 Box of Cooked Cowheels.
July.	4 Fore-quarters of Beef, 53 Boxes of Fish, 1 Barrel of Fish, 1 Salmon, 1 Bag of Picked Shrimps, 63 Pots of Potted Shrimps, 80 Bags of Gooseberries, 2 Baskets of Black Currants, 117 Baskets of Straw- berries.
August.	50 Boxes of Fish.
September.	2 Fore-quarters of Beef, 16 Boxes of Fish, 48 Rabbits, 1 Bag of Offal.
October.	27 Boxes of Fish, 1 Box of Kidneys, 3 Barrels of Pears, 112 Rabbits.
November.	1 Beast, 12 Boxes of Fish, 1 Bag of Mussels.
December.	2 Beasts.

SUMMARY.

4 Beasts.	3 Boxes of Pigs' Plucks.
1 Hind-quarter of Beef.	5 Frozen Livers.
10 Fore-quarters of Beef.	2 Boxes of Frozen Kidneys.
242 Rabbits.	1 Box of Cooked Cowheels.
215 Boxes of Fish.	2 Bags of Mussels.
3 Barrels of Fish.	1 Bag of Oysters.
1 Salmon.	1 Bag of Picked Shrimps.
13 Kippers.	63 Pots of Potted Shrimps.
8 Bags of Yeast.	80 Bags of Gooseberries.
1 Bag of Offal.	2 Baskets of Black Currants.
3 Barrels of Pears.	117 Baskets of Strawberries.

The following statement shows the quantities of unwholesome Food destroyed at the Miry Lane Depot during the year :—

	T.	C.	Q.
Fish	28	11	1
Beef	6	14	0
Pork	0	4	0
	<hr/>	<hr/>	<hr/>
	35	9	1

In addition to the above, the following was destroyed :—

				T.	C.	Q.
Shell and Fish Refuse	..	..	..	17	13	2
Other Refuse	..	..	..	202	7	3
				<hr/>	<hr/>	<hr/>
				220	1	1
				<hr/>	<hr/>	<hr/>

CANAL BOATS ACTS, 1877 to 1884.

The requirements of the above have been carried out during the past year, to the entire satisfaction of Mr. Llewellyn (His Majesty's Inspector of Canal Boats), who visited Wigan on March 10th, 1910, and inspected the books.

No. of Boats that have been registered at Wigan	..	261
„ „ still in use or available	.. ..	81
„ „ not in use	.. ..	153
„ „ that cannot be traced	.. ..	11
„ „ re-registered with other Authorities	..	9
„ „ „ at Wigan	.. ..	7
„ Applications for Registration during 1909	..	1
„ „ Granted	.. ..	1
„ Inspections	.. ..	114
„ Notices issued	.. ..	3
„ „ complied with	.. ..	1
„ Contraventions of Regulations	.. ..	3
„ Letters sent out	.. ..	34

SMOKE NUISANCES.

The different factories and works have had attention paid to them in connection with the emission of black smoke, and in some instances the firemen have been spoken to and asked to take greater care in the execution of this work.

No. of Smoke Observations Taken	.. ..	138
„ Notices issued	.. ..	2
„ „ complied with	.. ..	2
„ Letters sent out	.. ..	1

INFECTIOUS DISEASES.

There has been a great amount of work during the year with regard to infectious diseases, and Mr. Martlew's time has been fully occupied in visiting, re-visiting and removal of cases ; in fact, he has really been over-worked, but has zealously carried out all the instructions given to

him by the Medical Officer of Health, and has displayed great tact and discretion in what is at times a very disagreeable duty.

Appended is a summary of the work done :—

INFECTIOUS DISEASES (PREVENTION ACT).

No. of Houses Disinfected	..	..	..	..	1,223
„ Rooms	„	..	..	..	1,509
„ Beds	„	..	..	..	1,052
„ Mattresses	„	..	..	..	434
„ Sheets and Quilts Disinfected	..	..	..	..	3,834
„ Other Articles	„	..	..	..	8,629
„ Premises Cleansed and Limewashed after Infectious Disease	..	..	..	..	548
„ Visits to Houses <i>re</i> Limewashing and Cleansing, &c.	..	..	..	..	746
„ „ <i>re</i> Infectious Disease	..	..	..	..	3,495
„ Letters sent out <i>re</i> „	..	..	..	..	14
„ „ <i>re</i> Limewashing, &c.	..	..	..	..	82

SALE OF FOOD AND DRUGS ACTS, 1877 to 1907. MARGARINE ACTS, 1877 to 1899.

Under the above Acts 208 samples have been taken. In some cases where the samples have not come up to standard a warning has been sent, and has had the desired effect.

No. of Samples obtained for Analysis	..	..	208
„ Genuine	..	..	201
„ Adulterated	..	..	7
„ “Not Formal”	..	..	75
„ Letters sent out	..	..	5

								Not
			Samples.	Genuine.	Adulterated			Formal
New Milk	..	..	114	110	4	..	2	
Whiskey	..	..	16	16	—	..	16	
Margarine	..	..	3	3	—	..	—	
Butter	..	..	33	31	2	..	15	
Tea	..	..	17	17	—	..	17	
Sweets	..	..	7	7	—	..	7	
Potted Shrimps	..	..	1	—	1	..	1	
Condensed Skimmed Milk	..	..	7	7	—	..	7	
Condensed Milk	..	..	10	10	—	..	10	
			208	201	7	..	75	

FERTILISERS AND FOOD STUFFS ACT.

Twenty-two samples have been procured and handed to the Official Analyst, whose report appears in the Medical Officer of Health's Report.

FACTORY AND WORKSHOP ACTS.

Many visits have been paid to the different factories in the district, generally on reports made by H.M. Inspectors of Factories, and where the requirements were needed, notices were served, and the alterations attended to. Appended are particulars.

FACTORY AND WORKSHOP ACTS.

No. of Workshops in Borough	610
,, Visits to Workshops	859
,, ,, to Factories	209
,, Letters sent out	52

SHOP HOURS ACTS.

No. of Visits to Shops	44
,, ,, (re Closing Order) Day ..	494
,, ,, ,, Night ..	601

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER.

When visited the different places were generally found in a satisfactory condition.

No. of Visits	167
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PROSECUTIONS, 1909.

January 14th.	For breach of the Closing Order, Shop Hours Act, 1904. 2 Offences. Fined 5/- and costs in each case.
January 28th.	For selling to the prejudice of the purchaser 1 Pint of New Milk, not of the nature, &c., demanded. Case adjourned, then withdrawn.
January 28th.	For selling to the prejudice of the purchaser 1 Pint of New Milk, not of the nature, &c., demanded. Fined 1/- and costs.
March 15th.	For selling to the prejudice of the purchaser 1 Pint of New Milk, not of the nature, &c., demanded. Payment of costs.
May 6th.	For selling to the prejudice of the purchaser 1lb. of Butter, not of the nature, &c., demanded. Fined £10 and costs.

During the past year one inspector (Mr. E. T. Knowles) received an appointment at Wolverhampton, and we also lost one inspector (Mr. M. Clunan) by death. Up to now there have been no additional inspectors appointed.

In conclusion, Gentlemen, I have to thank you for the help extended to me by the Committee, and to the members of the staff I am greatly indebted for their co-operation and readiness at all times in executing very onerous and trying duties.

I remain, Gentlemen,

Your obedient Servant,

JOHN SUMNER,

Chief Sanitary Inspector.



